

Fall 1985  
\$2.50

# Icon Review

*The resource for outstanding Macintosh™ software*

**MAC-BOOM!**

**They're Here!  
More than 100 Hot  
NEW Products.**

**It's A Buyer's  
Paradise!**



In this issue of *Icon Review*, we are proud to present you with more than 150 outstanding Macintosh products. Each has the potential to make valuable contributions to the way we work, think, communicate, and learn.

These products are the best evidence of what dreams the Macintosh inspires in the minds of some of the most talented and creative people in our society. This *Icon Review* is your passport to their work. We have scoured the country to identify and review the very best products now available. We invite you to join us in the Macintosh adventure.

**Dennis C. Moncrief**  
Publisher



## ICON REVIEW SELECTION GUIDELINES

A high level of enthusiasm among early users is often the first hint that a new software product is a cut above the ordinary. In our pursuit of outstanding Macintosh products, the editors of *Icon Review* consider the following:

- Does the product function reliably and as advertised?
- Is it innovative?
- Is it superior to the competition?
- Is it the best value?
- Is it balanced between ease of use and power?
- Is the basic design intuitive and user friendly?
- Does it fully exploit Macintosh features?
- Does it work synergistically with other programs?
- Does any copy protection present a minimum of inconvenience to the user?
- Does it aid productivity?
- Does the developer fully support the product with a meaningful guarantee and technical support?
- Can upgrades and enhancements be expected?
- Does the developer provide on-disk help menus, tutorials, and example material to aid the beginner?
- Is the documentation complete and straightforward?
- Is the program fun to use?

Never before has a computer engendered such enthusiasm in its users! We began *Icon Review* because we thought there should be an easier way for all these enthusiastic people to find out more about the best Macintosh products—and get them at good prices. It seems you agree! Thanks to your overwhelming response, we have moved to larger quarters and installed a more powerful automated order-processing system. You'll enjoy the result of our increased efficiency in better service and price.

Our special thanks go to you our readers, and all the Macintosh enthusiasts who contributed to this second issue.

**Brett LaSorella**  
Marketing Director

*Brett LaSorella holds B.S. degrees in Physics and Financial Management. He has developed information systems and financial models for Ahmdal Corp. as a financial analyst, and served as a Research and Development engineer with NASA.*



Catalog or consumer report? *Icon Review* is the balance of both because of its tight selection guidelines and ambitious editorial objectives. Like other specialty catalogs, we select only those products we think will best serve our customers. But due to the complex nature of many software products, we seek out reviewers who have special experience with each product's application. They candidly describe a product's strengths and weaknesses so that you can judge for yourself whether the product is right for you.

Your letters in response to the first issue indicate that you find this balance of careful selection and candid reviews valuable and helpful. I hope this issue with its expanded list of products will be even more useful. Please write and let me know!

**Susan Raab**  
Managing Editor

*Susan Raab founded the publications departments at Digital Research, and co-authored "Fatten Your Mac" (Dr. Dobbs Journal, January '85).*



## NATIONAL ACCOUNTS PROGRAM

*Icon Review's National Accounts Program serves the special needs of the many companies, user groups, schools, and government agencies that have come to depend on us as a source of information and supplier of Macintosh software and accessories. The National Accounts Program is run by a highly qualified staff dedicated to serving the needs of volume buyers who rightfully expect convenient service, greatly reduced prices, and personalized support. Even software not yet evaluated by *Icon Review* can be provided on request. We are equipped to accept your Purchase Order by phone or mail. For detailed information, call (408) 625-1957 and ask for Brett LaSorella.*

## TECHNICAL SUPPORT

Should you need technical assistance we advise you to first consider using the developer's HOTLINE listed in your software manual. We gladly provide backup technical support.

## GUARANTEE

*Icon Review only markets products that are supported by a manufacturer's guarantee. Should you receive a product you believe to be defective, please call our Customer Service Department for a Return Authorization Number and we will send you a prompt replacement. Remember, your satisfaction means everything to us.*

## COMPUSERVE

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## Bring Your Co-Workers Into the Process

### DecisionMap

By John Duhring

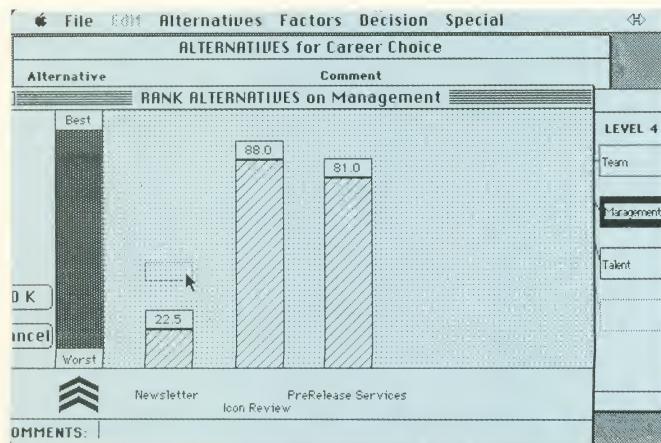
DecisionMap is hot stuff! The dry description "decision modeling and support" does little to convey the thrill of watching solutions to your complex, real-world problems develop in a friendly Macintosh environment. Once a decision is laid out with DecisionMap, the influencing values and relationships are clearly presented for all to see. Whether you are justifying the expense of a new computer, debating the merits of adding a new faculty member, or considering which college is best for your child, DecisionMap helps you bring the deciding group together for discussion in an agreeable, constructive way.

Designed by Craig Slayter, a former senior management consultant with Arthur Andersen and Alexander Grant, DecisionMap tightly adheres to the Macintosh interface standards. Once the basic technique for setting up decisions is understood, running the program becomes second nature. The closest thing we can find to DecisionMap on the IBM PC is LightYear; but, LightYear does not allow the user to dynamically order priorities and weight various factors so easily and enjoyably.

#### Second Guessing Made Easy

The first step in using DecisionMap is to list all the alternative outcomes to your decision. Next, you link the factors that influence each element of a decision, building a display that looks like a MacProject model, as shown in the first illustration. Factors are then weighted against each other by dragging the top of a bar graph up or down a scale—less to more.

The value of all the alternative outcomes is ranked in the same way, but relative to each of the independent factors on a scale of worst to best, as shown in the second illustration. This ranking and weighting is simple once you



The ranking screen. Your alternatives are compared for each subordinate factor. The weighting screen compares subordinate factors and uses the same methodology.

get the hang of it.

Select any element of the model (or the model as a whole) to view the decision based on the priorities and values you have assigned to it, as shown in the third illustration. DecisionMap allows you to flip through all the elements that make up your decision and to dynamically realign your values if you wish, just as in real life! Those who second-guess now have a powerful tool for analyzing assumptions!

DecisionMap works under the "more than a handful is wasted" rule. Slayter found that people can usually uncover a "short list" of five or fewer key factors from a longer list to support any level of a decision. DecisionMap considers up to five alternative outcomes for each decision, and each element of the decision can be influenced by up to five factors at each level of priority.

This sounds like more of a limitation than it actually is. Let's say you want to choose between three alternatives. At the first level, your choice can be influenced by up to five key elements. Each of those elements can be weighted by up to five elements at a second level. Each of those can be weighted by up to five elements at a third level, and so on. You can continue to add levels, and complexity, to your model as long as you have disk space.

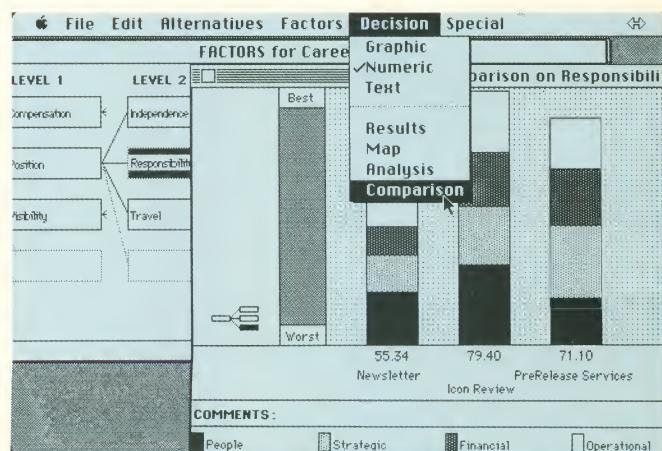
#### Helping Others Support You

DecisionMap will dramatically improve your ability to support your decisions by allowing you to stimulate discussions and assimilate the views of others into your model. Use it as an electronic, three-dimensional blackboard to "walk-through" your decision trees in departmental meetings, in the board room, or around the kitchen table. Anywhere a decision needs to be explained and understood, DecisionMap will allow the information to be presented and reviewed in a uniquely Macintosh way.

#### #1210 DecisionMap

From SoftStyle, Inc.

Retail \$145 Icon Review \$99



Your decision. Select any factor (here it's Responsibility) and discover which alternative scores highest, taking into account subordinate factors.

## Integrated Idea Processor PreWriter

What's the best way to formulate ideas for written communication? To write a few paragraphs for a note or letter doesn't take much thought. But when you're concerned about communicating information, concepts, or ideas clearly on paper, you're undoubtedly more careful. Do you wake at midnight to capture ideas on slips of paper, or do you take copious notes on 3 x 5 cards as you research your topic in the library? Do you have an outline or plan in mind when you sit down at the keyboard or pick up your pen, or do you just let fly, going back later to organize your thoughts into a cohesive structure?

Of course there are as many ways to write as there are writers, but the word processing programs available today do not take different creative approaches into account. They target the later writing and formatting stages of document preparation, leaving you on your own to capture and organize the ideas and information you'd like to communicate. This is an unfortunate oversight because even the best idea can die in the mind of its originator unless it is sufficiently developed, capable of being explained to and understood by another.

Recognizing the importance of this idea-development stage of writing, the programmers at MindWork Software have designed an "idea processor" that helps stimulate your creativity and organize your ideas. Their creation, PreWriter, is an integrated outliner, note filer, and text processor. PreWriter lets your work flow naturally from information gathering, outlining, and structure development, through writing, revision,

and polishing. With PreWriter, you can freely jot down ideas, sort notes, expand outlines, and draft text as the need occurs.

The Notebook lets you capture ideas and information in forms called notecards. It can scan notecards for key words, and select them accordingly. The outliner lets you expand, contract, and group headings and subheadings, any of which may represent a notecard, another outline, or a graphic image.

PreWriter's text processor supports the MacWrite file format for text and graphics. This means you can format your documents with fonts and graphics just as you can in MacWrite. You can also use files you've already created with MacWrite and, if you want, edit PreWriter files with MacWrite. PreWriter can also process Think Tank files.

Most importantly, the outliner, Notebook, and text processor are all compatible. Unlike other outliners for the Macintosh, PreWriter is a full-featured text data management system and lets you cut and paste outlines and notes into your text documents.

PreWriter lets you open as many as 12 document windows on your screen. This means you can manipulate several outlines, text files, and Notebooks at once and view different parts of a document in different windows. PreWriter also contains special functions to "blockbust" your writing. These functions break

paragraphs into sentences and sentences into phrases so that you can quickly analyze and improve your text's composition and style.

PreWriter's Exper Mouse mode lets experienced users accomplish common actions with fewer moves and clicks, while Exper Keyboard mode moves the cursor with keystrokes on the home row. Commands to count words and characters are also included.

Perfect for anyone who communicates in writing — businessmen, professionals, educators, and students — PreWriter can help you capture your thoughts on paper. Get your hands on this exciting new tool by requesting more information or by placing your order now at the special Introductory Price of \$99.

**#1200 PreWriter:** From MindWork Software  
Retail \$149 **Icon Review \$99**

Put your Mac in touch  
with the world! Read  
about telecommunications. Starting on  
page 26.

**Icon Review offers  
substantial discounts on  
blank media — see page  
41. For diskette storage  
systems, see page 44.**



Keep your mouse rolling  
with a cushioned Mouse  
Pad. See page 45.

## Would a Little Prompting Help? Consultant

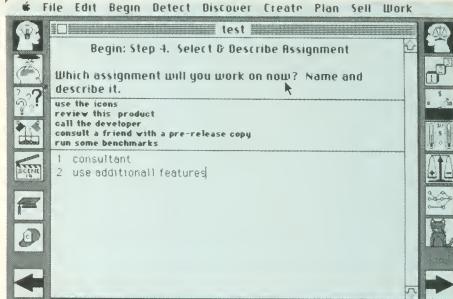
Consultant is to thinking and planning as word processing is to writing — both have been around a long time but the Macintosh makes the process easy, effective, and intuitive. Consultant improves your productivity by adding structure and organization to your planning process. The key concept of Consultant is prompting: it prompts you to develop an action plan by following steps presented as menu items, then returns feedback using two levels of structure. The first asks sequences of questions, and the second stores answers for use in future prompts.

Consultant's functions are divided between Lists of Procedures, which appear within menus, and Thinking Aids, which appear as icons. Icons on the left of the screen call up Thinking Aids for Idea Generation, while those on the right contribute to Decision Making. Once you've described an assignment in response to its prompts, Consultant asks questions, then prints your answers in small type above subsequent prompts so you can review your goals as you continue to respond. Consultant unfailingly prompts you to think about aspects of a decision you might otherwise have neglected.

Some early Consultant users — CEOs and executives of sizable corporations have been generous in their praise.

"I had a problem. I bought Consultant. I solved the problem. If you want a testimonial, call me anytime." That's testimony enough!

We feel Consultant is the single most innovative product we've discovered this year and predict that it will soon be embraced by the corporate community. Like DecisionMap and PreWriter, it belongs to a new category of productivity software that helps you stimulate and organize thoughts and ideas.



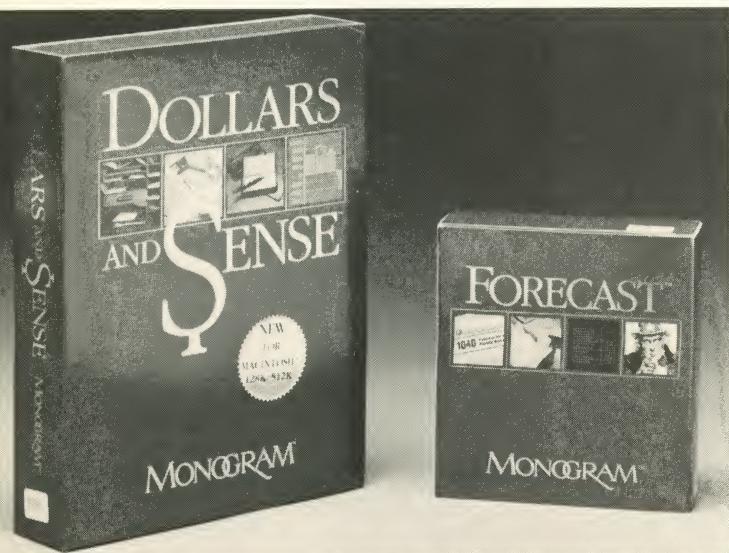
From the Begin menu item, Consultant prompts you through a series of questions and numbers your responses. Previous responses appear in small type above for your review.

Get Your Financial House In Order!

## Dollars & \$ense and Forecast

Dollars & \$ense makes light work of special needs in your personal financial management. Beyond balancing your checkbook and paying your bills, Dollars & \$ense can help you manage your investments and credit card purchases, keep track of your inventory of personal goods, and forecast your financial position by answering "What if?" questions. Best of all, it's easy to use. You don't have to know anything about accounting or computers to get your financial house in order.

The first half of the Dollars & \$ense manual is a complete tutorial, giving the new user hands-on experience in operating all the major functions. The second half is a "Working Reference Guide" with a detailed description of all Dollars & \$ense functions. Also included in the manual are several practical Dollars & \$ense applications: Client Billing, Credit Card Management, Paying Routine Bills, Expense Account Management, Managing Stocks and Bonds, and Household Inventories.

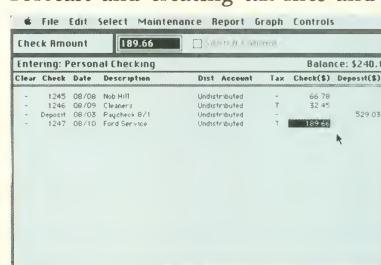


## ASK ABOUT OUR NATIONAL ACCOUNTS PROGRAM

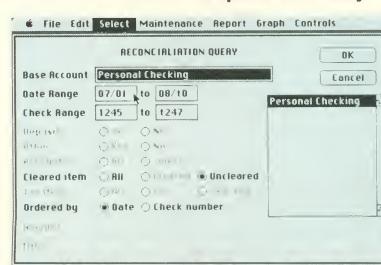
408/625-1957

Forecast is a separate package that helps you plan strategies that can defer or minimize your federal income tax. Although you can use Forecast alone, it's to your advantage to use it with Dollars & \$ense because it can then access the financial records you have already stored on disk.

Forecast can show your tax liability or predict what it could be next April. It lets you create various tax scenarios that show the effects of changes in income, expenditures, and revisions of tax laws. The tutorial shows how to create a typical tax scenario, and describes the procedures for starting Forecast and creating tax files and studies.



Entering checks and other transaction information is quick and easy.



Reconciling a statement is as easy as clicking the mouse.

If you want to track all the details of your personal finances, Dollars & \$ense is for you. It will take some effort to learn the program and enter your figures, but once this is done, keeping your finances in order will not take much time. Adding Forecast to the system will help to minimize your federal tax liability and let you forecast future tax years. Take firm control of your personal finances by starting with Dollars & \$ense today!

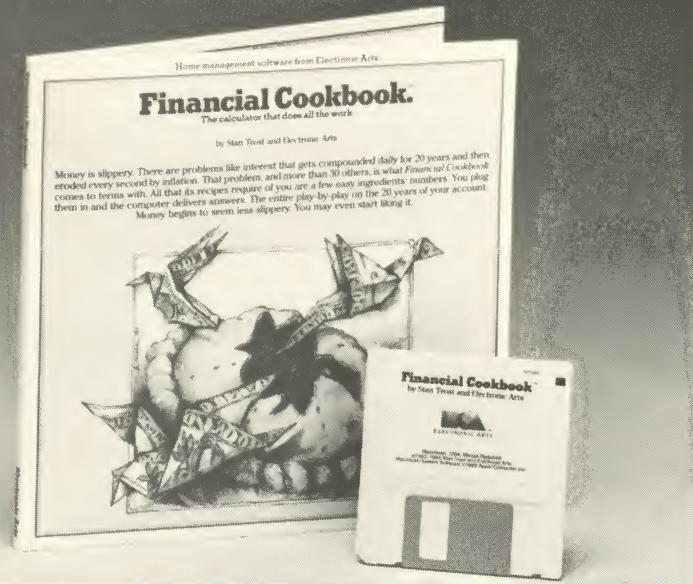
Requirements: Macintosh or XL with MacWorks, external disk drive recommended

#1072 Dollars and \$ense: From Monogram

Retail \$149 Icon Review \$89

#1062 Forecast: From Monogram

Retail \$69 Icon Review \$45



## Answers Your Financial Planning Questions

### Financial Cookbook

"After a session with Financial Cookbook, I feel a little smarter than I did before," says one satisfied user. You'll feel smarter too, and maybe even a little smug as you make better-informed decisions on your personal financial commitments.

For example, if you are shopping for a car, Financial Cookbook can help you answer questions like, "How much can I afford to pay for a new car? What will it cost per mile? What tax savings will I get from my auto loan interest? For business, should I buy or lease?"

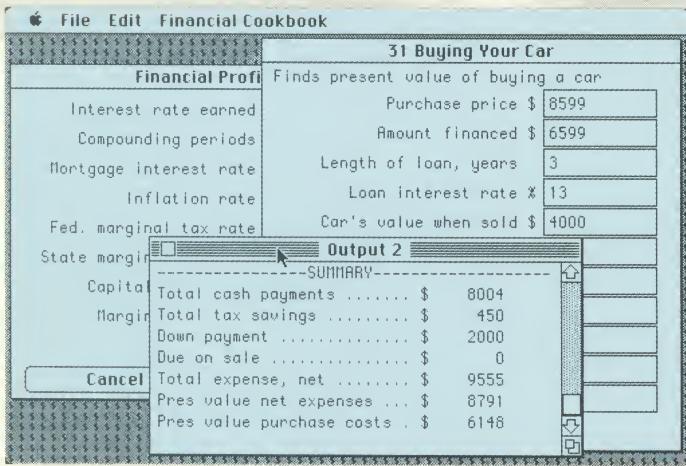
To answer any one of these questions, you select the appropriate "recipe" from Financial Cookbook's list — in this case, Buying Your Car. Financial Cookbook then displays a form for you to fill in with information like purchase price, insurance costs per year, loan interest rate, miles per gallon, and so on. When you've filled in the form, Financial Cookbook quickly calculates the cost per month, actual cost per mile, tax savings, and other valuable information. You can select another recipe, such as Leasing Your Car or Fixing Your Car, then compare expenses to make the best decision.

Financial Cookbook contains 32 recipes that analyze financial commitments like purchasing a car, making monthly savings deposits, living on your savings, buying, renting, or refinancing a home, installing energy-saving devices, earning interest on treasury bills, saving money with IRA's, and many more. In fact, Financial Cookbook could easily pay for itself the first time you use it by identifying your most prudent course through murky financial waters. If you're facing any personal financial decisions or commitments, or just planning your future, put Financial Cookbook to work for you today!

#### #1177 Financial Cookbook

From Electronic Arts

Retail \$50 Icon Review \$40

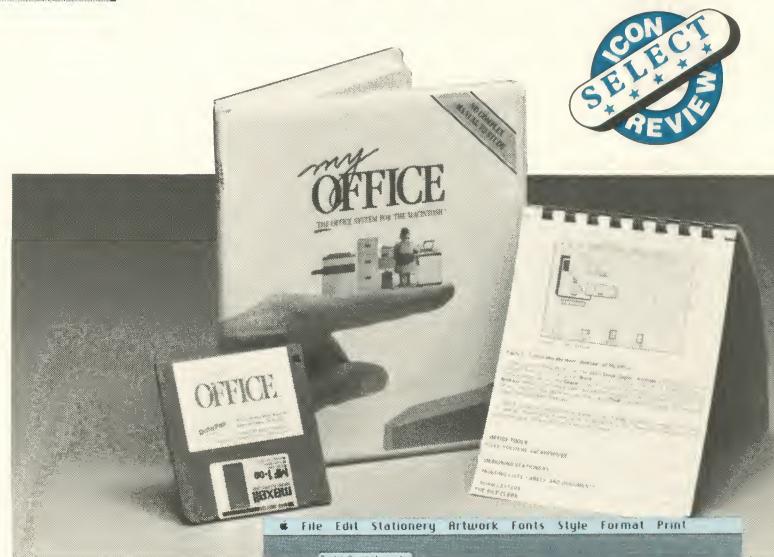


Still The Best...

### My Office

My Office uses the Mac's graphics to electronically simulate common office equipment — like a filing cabinet, typewriter, and copier — and powerfully integrates their functions. We featured a review of My Office in our last issue, and since then have compared it with other programs such as MacOffix from Emerging Technology. Our conclusion: for those who have never touched a computer but wish to perform simple filing, reporting, and word processing functions, My Office is still the best! The Macintosh Users' Group in Albany, Oregon, agrees — it dubbed My Office "Program of the Year!"

The designers of My Office have expanded the desktop metaphor to include the whole office. The clever animation of the file drawers as they open is the most highly developed visual metaphor we've seen anywhere. These high-power graphics let a new user grasp the necessary fundamentals immediately. Simple and straightforward routines permit you to design form letters, store invoices, file 3 x 5 cards, record sales contacts, print mailing labels, and so on. In fact, My Office will create, file, and retrieve any kind of form you dream up. An archive feature automates the process of sorting through old and seldom used records and storing them in a separate file. In short, we have seen no simpler way of elec-



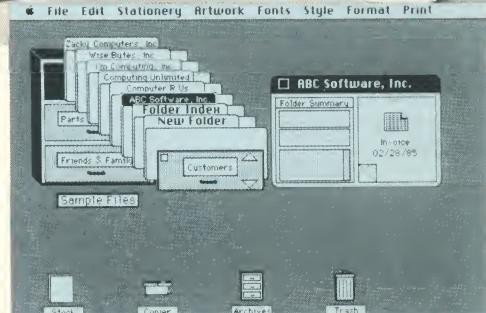
tronically moving out the routine correspondence that runs most business activities.

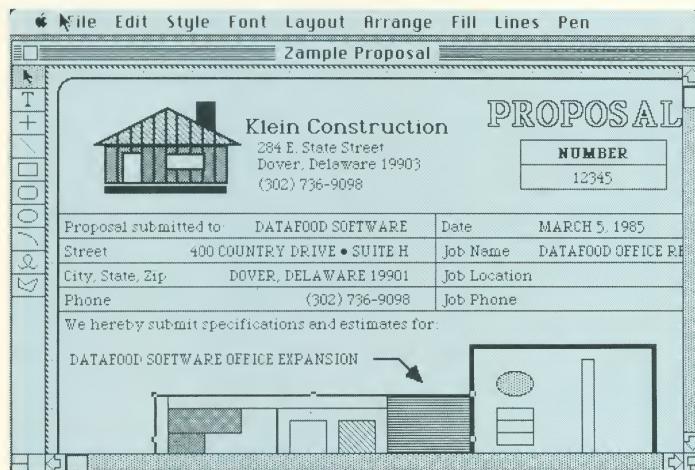
#### #1035 My Office

From DataPak Software, Inc.

Retail \$129

Icon Review \$95





To fill out the form shown here, you have to scroll the image. DrawForms includes a reduced layout of each form so you can enter data without scrolling.

*All The Business Forms You'll Ever Need!*  
**DrawForms**

DrawForms is a collection of more than 100 of the most popular business forms in MacDraw format. The four disks contain forms for accounting and financial management, purchasing and material management, personnel and time management, or sales and project management. For example, DrawForms includes the following: Attendance Record, Cash Report, Credit Memo, Debit Memo, Delivery Receipt, Employment Application, Inventory Record, Invoice, and many, many more!

DrawForms eliminates the need to spend time and money developing forms with your commercial printer, graphics department, or even on your Macintosh! In fact, every commercial print shop that has installed a LaserWriter for quick typesetting jobs should make this package a part of its software library.

DrawForms can easily be modified with MacDraw. You can add company logos and rearrange the forms to satisfy individual requirements. You can

print out blank forms to be reproduced and filled in by hand, or you can fill in each form individually with Mac-Draw before printing it out. The latter practice can completely eliminate the need to print and stock expensive business forms! Start using DrawForms in your business now to save expensive design and stocking costs!

#1158 **DrawForms**: From Datafood Software Company  
*Requirements: MacDraw Retail \$59 Icon Review \$35*

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## *Speedy And Simple Personal Finance* **Electric Checkbook**

If paying bills, balancing your checkbook, or figuring your income tax periodically worries you, Electric Checkbook

print them on standard continuous checks at your printer. Samples of computer checks and order forms are included in the package.

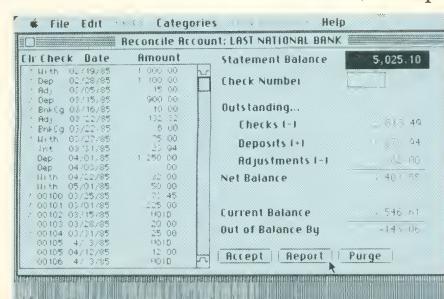
Electric Checkbook lets you define your own categories for income, expenses, assets, and liabilities. It prints useful reports, such as an income statement that shows profit and loss as well as the difference between your income categories and your expense categories. You can also print out a balance sheet that compares your assets to liabilities, giving you your consequent net worth.

Electric Checkbook takes advantage of all Macintosh features, and produces maximum results with a minimum of attention. It keeps the task of financial record keeping so simple, you might forget to get aggravated!

## **#1013 Electric Checkbook**

Retail \$79    Icon Review \$49

Review 1000 Review 1000

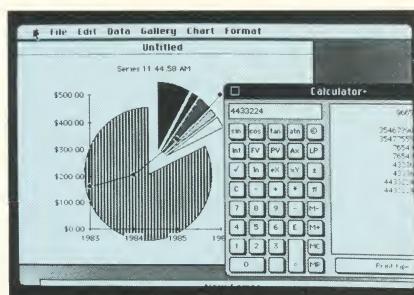
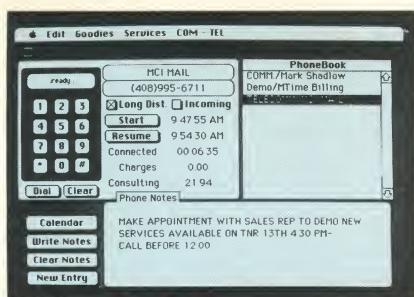


## A Powerful Bundle of Utilities . . . Sidekick

By Frank J. Moncrief

I was ready to place a curse on all desk organizers. I've personally gone without one and kept track of my contacts on paper. No more! Sidekick overcame all my desk organizer objections and then some. In fact, Sidekick may be the Jazz of the accessory menu! But I'm not the only one who can benefit from the host of features offered by Sidekick. If you're a power telephone user, perhaps a salesman, broker, or consultant, you need this product too.

Just what are all these powerful features I'm so excited about? Sidekick's extensive collection of utilities includes (take a deep breath now): a rolodex information filer; an extensive calendar and week-at-a-peep scheduler; multiple appointment alarms; a MacWrite- and Word-compatible memowriter; a quickterm modem program; telephone dialing from multiple phone books; a phonelink interface that connects your Mac to any telephone; telephone log that records the name, number, time, cost, applicable consulting fees, and appended notes for each call; area code lookup; print spooler; printouts from filer formatted as rolodex cards, mailing labels, or phone books; a things-to-do list; an expense and credit card manager; a multifunction calculator with business



functions such as amortization built in; and an analog clock. (You can breathe now!)

You can run Sidekick as a primary application — if, for example, you spend most of your day selling by phone — or you can access nearly all the Sidekick features as desk accessories. But you have to experience the interplay of these accessories to appreciate them!

Let's say you need to consult with

a client in Omaha. You'll use the dialer utility, which can record and display contact, phone number, phone book entries, phone notes, connection time, time on the line, phone charges, and even consulting fees! Call the operator to determine phone charges for the first three minutes to Omaha and each subsequent minute, load them into the client's index card, then enter your telephone consulting rate. Call up the index card from the accessories menu, click dial, hit start when the phone is answered, then watch your telephone charges and consulting fee tick away as you talk!

You can transfer your Sidekick entries to Microsoft File, if you need sorts beyond the name and category functions included in Sidekick, or to Word, for mail merge. QuickSheets is a great accessory for building invoices, client records, or whatever you like. You can adjust the width of columns, change names, create invoices or other forms, all while using some other primary application.

The profusion of well-implemented features offered by Sidekick makes it the very best of the desk accessories on the market today.

*Frank J. Moncrief is Icon Review's senior contributing editor and a fellow Macintosh enthusiast.*

**#1176 Sidekick:** From Borland International  
Retail \$85 Icon Review \$59

## Relational and Multi-User Omnis 3

Omnis 3 is an exceptionally powerful database manager designed for business applications. It can import data from many sources — Jazz, Microsoft applications, even dBase II and dBase III on an IBM PC.

There are two programs in the package: Omnis 3 and Utilities. Omnis 3 makes it easy to design a custom database by letting you make selections from menus instead of learning a programming language. The user of your custom application sees only the menus you've designed and is insulated from the more complex Utilities.

You work with a library file, which defines the structure of the data and reports, and an associated data file, which contains the unformatted data. The Utilities provide excellent data import and export capabilities, facilities for reorganizing relationships between files, re-indexing, renaming, and deleting. In fact, Omnis 3's file-combining capabilities give you a fully relational database.

There are fixed limits to everything in Omnis 3: 7 characters per field names, 60 characters per field, 12 indexed fields per file, and dates only in the 1900's. Omnis 3 supports multiple users and limits access with password protection. But one feature is so unlimited it's difficult to test: Blythe claims Omnis 3's data files can approach 64 megabytes in size!

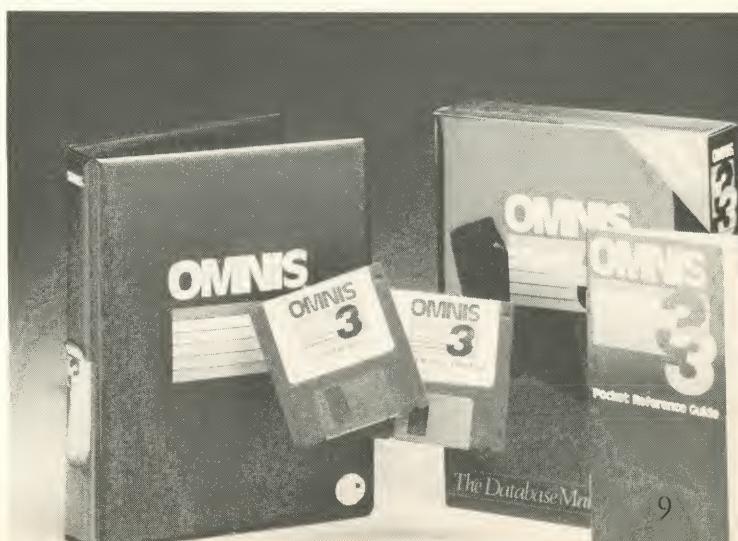
The ample Omnis 3 documentation offers excellent examples of inventory, time and cost accounting, accounts receivable, and personnel management systems. Omnis 3's novel copy protection scheme asks for the key disk only about 3 out of every 100 times you start the program. After

## ASK ABOUT OUR NATIONAL ACCOUNTS PROGRAM 408/625-1957

making the three free telephone calls allowed under the warranty you can purchase either additional individual calls or one of several support programs tailored for advanced users, developers, or value added resellers.

Omnis 3 provides a powerful yet easy to understand environment in which to develop vertical business applications on the Macintosh.

**#1088 Omnis 3:** From Blythe Software  
Requirements: 512K and external disk drive, hard disk recommended.  
Retail \$495 Icon Review \$319



Fast, Powerful, and Easy to Use!

## OverVUE 2.0

OverVUE 2.0 is our favorite database workhorse at Icon Review. We've been using it for everything from mailing lists, price lists, and invoices to keeping track of specifications for all these articles! Although we reviewed OverVUE extensively in the last issue, we feel strongly enough about this product to highlight it again!

OverVUE displays information in two formats: Datasheet or Form. In the Datasheet, every row is a record and every column is a field. You can scroll horizontally or vertically to view records and fields that extend beyond the screen. This format is familiar and comfortable for experienced spreadsheet users, and exciting to watch when you request sorts and searches!

An OverVUE Form displays all the fields for one record on the screen at once. This eliminates the need to scroll horizontally when you have more fields than will fit on the screen in Datasheet format. You can easily rearrange the position of fields on the Form by dragging them with the mouse. You switch between Datasheet and Form by clicking a Zoom box in the lower right corner of the screen.

When you set up a new Datasheet, you start with a single cell. You add new columns (fields) with the *New Column* command, which prompts you for the column name and width. Don't worry about leaving a column out — with OverVUE you can rename, add, and delete columns even after you've entered data. You can also assign an attribute such as *Money*, *Date*, *Numeric*, and *YesNo* to a column to screen unwanted information during data entry.

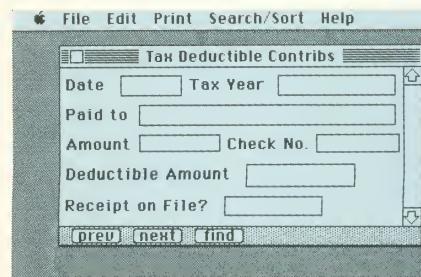
To enter data into the Datasheet, simply type your entry, then press tab or the space bar to move to the next field. Click the Zoom box to move to the Form and enter data without scrolling. A *Clairvoyance* feature will watch what you type, compare it to previous entries, and complete the current field if the first few characters match those of a previous entry. To override this feature, just keep typing. OverVUE can also import data from other programs such as Helix and Microsoft File.

OverVUE is written completely in assembly language, so its sort and query speeds are impressive. Within the Datasheet, you select any cell in the column you wish to sort or search, then select the *Sort Up*, *Sort Down*, *Select*, or *Select More* command. Don't blink or you might miss the action! We clocked one sort on a 439-record, 6-field datasheet at 3.6 seconds, and another on a 429-record 11-field datasheet at 4.25 seconds, including disk access time! OverVUE reports the progress of its activities in a window at the top of the screen. To sort on multiple fields, perform multiple sorts beginning with the least significant field. You can automate multiple sorts or any command process by writing a macro.

For Personal Files . . .

## I Know It's Here Somewhere!

I Know It's Here Somewhere! is a simple, easy-to-use personal filer. In just a few minutes, you'll learn how to create a new form, lay out labels and fields, and begin entering data. The disk contains example forms for storing such information as recipes, birthdays, address lists, credit card information, household inventory, and more. You can retrieve information quickly using any field, sort the forms in any order,



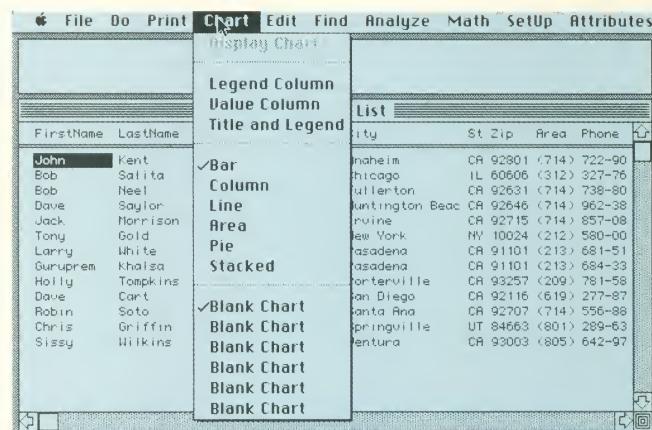
Filing the easy way.

and print reports. A 40-page manual is provided, although the single help screen is sufficient to get you started.



I Know It's Here Somewhere! may not be as powerful as the other database managers reviewed here, but it's powerful enough to organize all your household information and help justify your home computer. It's inexpensive, and best of all, it's easy to learn and use.

#1021 I Know It's Here Somewhere!  
From Hayden Software  
Retail \$59 Icon Review \$39



A datasheet of names and addresses, and charting options.

An OverVUE report can be a straight printout of the current Datasheet, or carefully formatted using a report template. Within the template, you can position or hide fields, and add text, column headings, headers, and footers. A Chart command helps you create MacPaint-compatible business graphics.

OverVUE can also join databases in a relational manner. It seems OverVUE's only technical limitation is its inability to handle graphics as data elements but that hasn't limited its application at Icon Review. OverVUE simply offers the best balance of power and ease-of-use available on the market today.

#1036 OverVUE: From ProVUE Development Corporation  
Retail \$295 Icon Review \$169

Dramatic Upgrade!

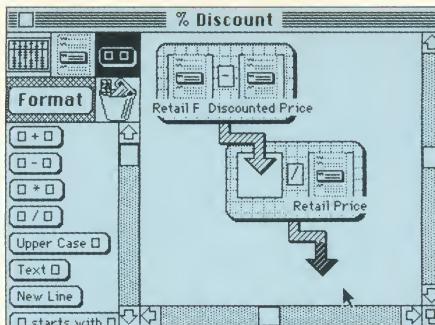
## Helix 2.0

By David L. Foster

A marvelously innovative database manager, Helix packs the punch of a full-featured relational database without requiring you to master a query language first or build complicated algebraic formulas from the keyboard. The 2.0 release features increased speed (a godsend), subtotals (a must for real-time applications), power to adjust the autosave operation (thank you), and the ability to insert MacPaint pictures into files, either as ornaments to forms, or as data (Wow!). Helix succeeds in providing both flexibility and ease of use in a powerful package that can be tailored easily to your own specific needs.

Helix requires the new user to learn a somewhat bewildering set of icons, but once they become familiar, the creation, editing, and use of Helix data files becomes remarkably straightforward. The joy of using the program occurs once a database has been set up and you want to shift course in midstream. Helix lets you rearrange data into practically any relationship conceivable. Changes in data from one window are automatically reflected in every dependent file or record throughout the entire database collection. Furthermore, Helix formats and prints reports of virtually unlimited variety.

Helix 2.0 supports almost 80 different types of calculations including algebraic, trigonometric, logarithmic,



**At first glance the icons seem incomprehensible. But with familiarity, the beauty of the logic behind Helix unfolds. It sure beats remembering commands!**

and statistical functions. This permits the design of databases useful for scientists and engineers. The ability to use and store graphic images greatly expands the number of potential applications for Helix, although there are performance penalties for doing so. But you can imagine how wonderful it would be to store pictures of employees or students in their personnel or school records — great for sales reps visiting the home office, or the substitute teacher!

If you're thinking of getting involved with database analysis and design, Helix is the best tool I can think of to get you started.

*Dr. David Foster is a research scientist at UC Berkeley, a Macintosh consultant, and an avid microcomputing enthusiast.*

**#1020 Helix 2.0:** From Odesta Corporation  
Requirements: 512K Macintosh and external drive, hard disk recommended.  
Retail \$395 Icon Review \$229

Which Is Best For You?

## File or FileMaker

File by Microsoft and FileMaker by Forethought are both non-relational, forms-oriented databases. Neither can compare with the speed of OverVUE or the fully relational power of Helix or Omnis 3. So, when is File or FileMaker the best solution as your database? When you produce, store, and print forms such as invoices, mailing labels, per-

sonnel records, commission plans, and so on. Both products permit you to design attractive forms, set up calculated fields, and store graphic images.

Yet these two products offer significant differences. FileMaker stores an unlimited number of form layouts as part of the actual datafile, automatically indexes each field (allowing more rapid sorts), allows fields to expand as you type, and provides a simpler environment to set up calculated fields. File features a List Helper which organizes the fields of a datafile into a spreadsheet-like list, and easy data export to Microsoft Word.

After exploring both these products, we feel either one could fulfill your forms-oriented data management requirements. If you want to review your data in a multiple-record layout (such as a name-and-address listing) as well as a form layout, you'll want File's spreadsheet-like list format. But if your application involves forms only, FileMaker's flexibility, excellent documentation and support features make it the one to choose.

**#1016 File:** From Microsoft

Retail \$195 Icon Review \$114

**#1017 FileMaker:** From Forethought

Retail \$195 Icon Review \$114

For Free-Form Filing . . .

## Factfinder

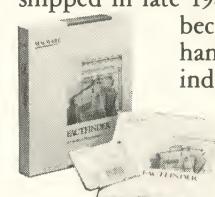
Factfinder is designed to store and organize the free-form information that might otherwise clutter your desk with bits and scraps of paper. To file a piece of information, simply type it onto a new factsheet, name the factsheet, select the keywords by which you will retrieve it, and save it to disk.

At your command, Factfinder can sort through the factsheets you've created and retrieve information by factsheet name, by any keywords you marked, or by the date you created or last modified the factsheet. You can organize related factsheets into a Stack, and they will be saved in one disk file. You can perform boolean searches, cut and paste between factsheets or other applications, or save selected factsheets to disk as text files which can be accessed by your word processor. The most recent version of Factfinder includes a built-in memory cache that improves speed and performance.

The on-line help and tutorial suggest many innovative uses for Factfinder. We've used Factfinder daily since it first shipped in late 1984, and it has

become one of our handful of favorite and indispensable tools. It's a must for every researcher, writer, student, teacher, and professional.

**#1015 Factfinder:** From Forethought, Inc.  
Retail \$150 Icon Review \$84



FEATURE	FILE	FILEMAKER
Expandable	NO	YES
Auto Indexing (All Fields)	NO	YES
Optional Spreadsheet Format	YES	NO
Hard Disk Install Utility	NO	YES
Stores Graphics	YES	YES
Uses Multiple Fonts	YES	YES
Mail Merge/Form Letters	YES	YES
Calculated Fields	YES	YES
IFTHEN-ELSE	NO	NO
Reports	YES	YES
Auto Label Creation	NO	YES
Grid For Layout	NO	YES
Retail Price	\$195	\$195

## MacDraft

By John Duhring

Macintosh now has a drawing tool for the serious design professional. If you work on a drafting table, designing anything from printed-circuit boards to architecture, MacDraft is an amazing tool tailored for you.

### New Drawing Power

MacDraft contains a powerful set of drawing, scaling, viewing, and measuring features that set it apart from other graphics programs. MacDraft plots to 512 dots-per-inch resolution, well in excess of the LaserWriter's 300 dots-per-inch capabilities, and is therefore suitable for use with other high-resolution plotting devices. Dimensions are automatically displayed as objects are drawn. Angles can be drawn and measured in 1-degree increments. Circles can be drawn by radius or diameter (you draw the line, MacDraft draws the circle). Arcs can be drawn by angle and radius, by the arc itself, or through three points. Solid and dotted lines can be drawn in any of nine widths, and dimensions can be measured from the line centers, insides or outsides. In addition to these drawing features, MacDraft accepts MacDraw objects and MacPaint bit-maps. Text inserted into a rectangle will automatically word-wrap and will adjust again when the rectangle is resized.

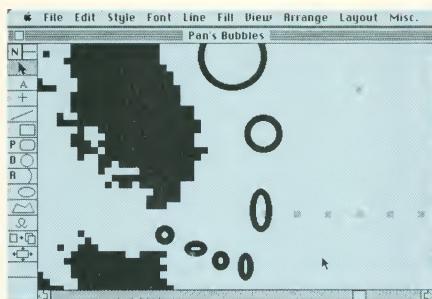
Each MacDraft document has its own framework, determined by its scale and enhanced by grid rulers and size units. This framework can be changed simply by changing scales. This means you can have several drawings of different scales displayed on the screen at the same time and copy and paste be-

tween them. When you copy an object from one drawing and paste it into another drawing at a different scale, the object will automatically adjust in size to conform to the scale of the new drawing.

The program provides excellent control over fine details, as shown in



Pan, imported from MacPaint, sports 75 dots-per-inch resolution. The bubbles added with MacDraft are "imaged" at an amazing 512 dots per inch.



MacDraft allows zooming in to 8x normal size (here we've enlarged the bubbles emerging from Pan's pipe). Note the rough appearance of the MacPaint pixels compared to the smooth MacDraft objects at this degree of detail.

the accompanying illustrations. MacDraft allows you to create a portion of your drawing in one scale, by importing it from MacPaint for example, then zoom in for a higher degree of detail. The resultant drawing will be printed at the resolution of your output device. **Flexibility for many applications**

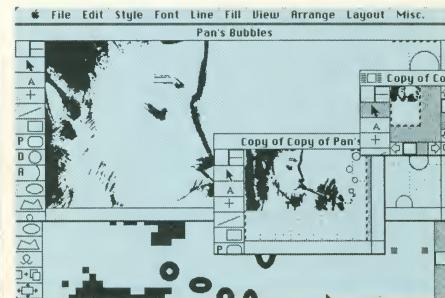
MacDraft's scaling, zooming, and high resolution printing capabilities make it a useful tool whether you are mapping circuit boards, designing industrial products, laying out floor plans, doing graphic arts, or preparing working drawings for a highway system overpass.

Beyond its powerful features, the most striking attraction of MacDraw is the meticulous attention the designers paid to everything from the continuous drawing mode to the speed in which dialog boxes appear and disappear.

MacDraft is the first program to provide sophistication of Computer Aided Drafting, and is a candidate for one of the Top 10 Macintosh products of 1985. When used with the LaserWriter, MacDraft could open up a myriad of profitable new market niches for the enterprising designer.

We recommend MacDraft for every professional draftsperson. It has the power and functionality to become the central tool at your design workstation, without overburdening you with a high price and sharp learning curve.

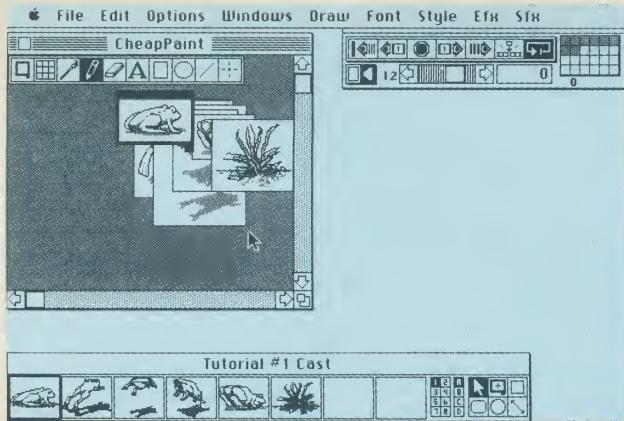
*John Duhring recently served as Publishing Evangelist within the Macintosh Division of Apple Computer.*



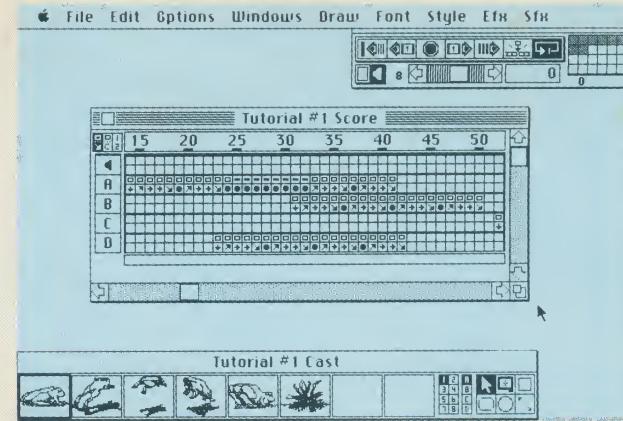
Documents can also be viewed by zooming out to 16x normal size. Very large documents can be created and printed sheet by sheet.

**#1082 MacDraft**  
From Innovative Data Design  
Retail \$249 Icon Review \$169





Using ArtGrabber, you can quickly place characters into CheapPaint (right). They're automatically displayed in the Cast bar (bottom) in the order of placement in CheapPaint.



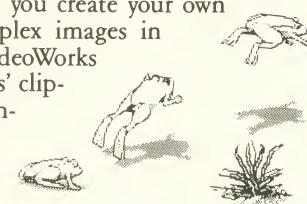
The Score is a powerful tool for orchestrating your animation (center). Beneath the frame numbers, the first row shows any activity in the sound channel while subsequent rows show activity in the animation channels.

## Fast and Easy Animation VideoWorks

VideoWorks can not only open your eyes to more of your Macintosh's graphic powers, but it can also remove any and all obstacles to your dream of becoming an animation artist! The three VideoWorks disks include tutorials, a library of predrawn figures for animation, and complete sample animation sequences.

VideoWorks provides two internal graphic tools — CheapPaint and QuickDraw — to help you create your own images. Or you can create complex images in MacPaint, then move them to VideoWorks using the ArtGrabber. VideoWorks' clip-art library, another source for graphic images, is thoughtfully designed to demonstrate advanced animation techniques.

Once you have the images you wish to animate installed as cast members, the fun begins. You just click on the Run button, select a cast member, and move it across the screen with the mouse. VideoWorks samples the movement over time (you can specify up to 60 frames per second), and replays the cast member following the path you created! This is useful for "motion sketching," but when you have many elements moving at different rates, you use VideoWorks' Tweak window, an incremental motion generator, to control precise frame-by-frame movements. For even more control, you can use frame-by-frame animation without motion sketching. Either way, you can choreograph up to 24 cast members in individual channels to move simultaneously! VideoWorks editing features are pure magic. The Score window shows activity in the sound and cast channels as symbols so that you can easily cut, position, copy, and paste sequences. The Playback Head under the Score lets you move forward and backward through frames, much as a professional animator might test his character's movement by flipping back and forth through a stack of drawings. You can have up to 1000 frames per sequence.



With only five different versions of a character (these frogs come with VideoWorks), you can quickly fill the screen using the Score to duplicate the images.

Marc Canter (collectively known as MacroMind, Inc.) plan to provide a version that will be able to import musical scores from MusicWorks.

The Chain command can begin a Record sequence automatically when a previous one ends. The Effects menu lets you determine figure and ground priority. A perspective file in the art library can help you create objects and backgrounds in depth, by showing how to simulate background-to-foreground movement in simple ways.

As you become more proficient with VideoWorks, you can study the example sequences, called Movies, to learn more advanced techniques.

VideoWorks is great for bringing business presentations to life with movement and sound effects. With VideoWorks, a screenwriter might do away with storyboards altogether! Try VideoWorks for any graphic presentation!

**#1070 VideoWorks with Art Grabber/Body Shop**  
From Hayden Software  
Retail \$99.95 Icon Review \$65

## Desk Accessory For Clip Art . . . Art Grabber with Body Shop

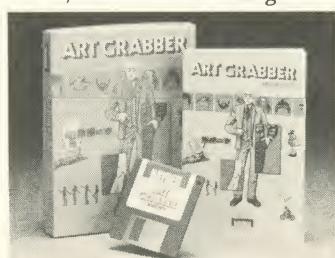
The stand-alone Art Grabber desk accessory comes with Body Shop, a voluminous set of ready-made graphics.

When you're ready to insert artwork into your document or animation, you select Art Grabber from the Apple menu. This causes a new pull-down menu to appear. From the Art Grabber menu you can then instantly Open and Close any MacPaint document and select the part you want by drawing the Selection Rectangle (or Marquee Box) around it, and then selecting Grab from the Art Grabber menu. This puts a copy of the image onto the Clipboard. Art Grabber is the kind of utility that should reside on every MacWrite and MacPaint disk.

**#1131 ArtGrabber/Body Shop:** From Hayden  
Retail \$49.95 Icon Review \$37



Sound Effects can match sounds to the action frame-by-frame. You have access to over 82 special sound and musical effects such as alarms, forest fires, birdcalls, and footsteps. The creators of VideoWorks, Jay Fenton, Mark Pierce, and



Browse Clip Art Libraries Conveniently With. . .

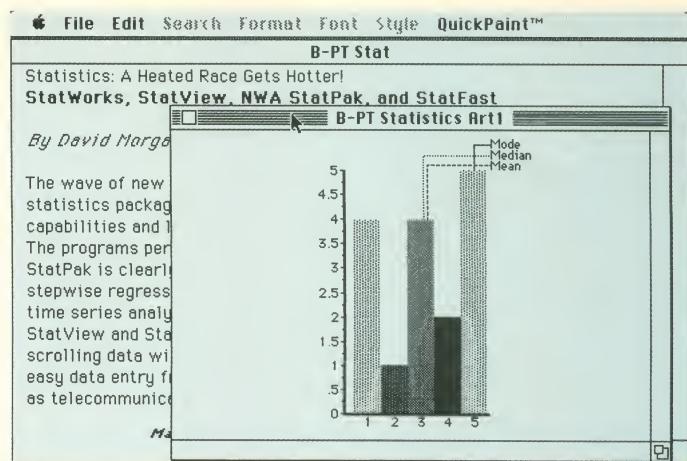
## QuickPaint

Like Art Grabber, QuickPaint lets you quickly browse through MacPaint files, select images, and paste them into the current document without ever leaving your word processor or other application. QuickPaint adds a new menu to the current application's menu bar. From the menu, you can open a MacPaint file, which QuickPaint displays in a form similar to the Show Page goody in MacPaint. You can resize the QuickPaint window to view and clip as much of the MacPaint file as will fit on your screen. You use normal editing commands to copy the image into the Clipboard, then paste it into the current document. The QuickPaint disk also contains a clip art library.

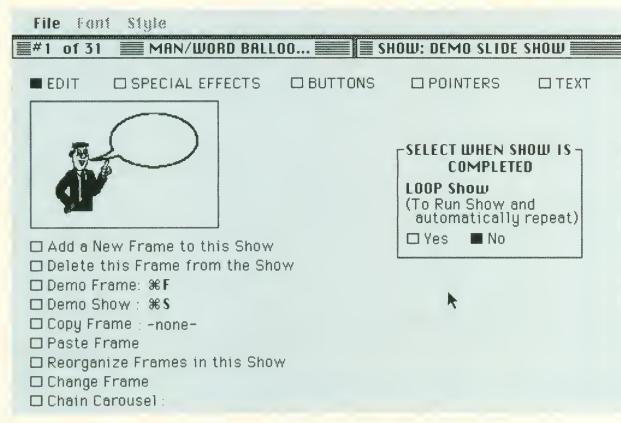
### #1168 QuickPaint

From Enterset

Retail \$49.95 Icon Review \$29



QuickPaint lets you access MacPaint files from any application.



Add Tools to MacPaint With. . .

## ClickArt Effects

By David H. Jenkinson

If you work with MacPaint, you need ClickArt Effects. ClickArt Effects can distort, twist, rotate and otherwise modify MacPaint images to extend the creativity possible with MacPaint.

ClickArt Effects is easily installed or removed by following the three simple steps outlined in the documentation. Once it resides in MacPaint, you can modify images or

text by selecting Effects from the Desk Accessories Menu. MacPaint Tools are then replaced by the four Effects Tools. These include a Wheel for rotating your object, a Leaning Tower of Pisa to slant it, a Road which allows you to render your creation in perspective, and a pair of Hands twisting a sheet of paper that lets you distort your object by pulling it in any direction you choose.

Once you have your object in the Effects mode, you surround it with a



selection rectangle (like the MacPaint Marquee). After clicking on one of the tools, you then grab any corner of the rectangle and pull in the direction allowed by that tool. You may sometimes find ragged edges after manipulating your subject. However, you can then enter Fat Bits and correct the edges. Without a doubt, this goody should be on your shopping list!

David Jenkinson is Circulation Manager at Icon Review.

**#1091 ClickArt Effects:** From T/Maker Graphics  
Retail \$49.95 Icon Review \$33



Many different designs are possible by manipulating different Effects tools within a MacPaint pattern.



Powerful Cut and Paste for MacPaint Graphics  
**Accessory Pak #1**

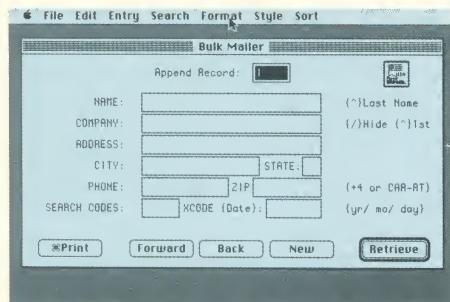
This disk contains many programs, but Paint Cutter is the star. It lets you open up to four MacPaint documents at one time and cut and paste between them. Most important, Paint Cutter scrolls automatically as you drag, allowing you to select up to a full page of art at one time! Paint Cutter works well with the Switcher for integration with other applications.

**#1166 Accessory Pak #1**  
Silicon Beach Software  
Retail \$39.95 Icon Review \$21

## Dedicated Mail List Power Bulk Mailer

By David H. Jenkinson

If you are looking for a dedicated mailing list manager that covers most mailing needs and is easy to use, powerful, flexible, and even fun, then Bulk Mailer is for you. On a 128K Macintosh, capacity is 4450 records for a continuous list using two drives. Us-



Professional mail list management set up and ready to go!

ing a 512K Macintosh, you can handle up to 7000 records.

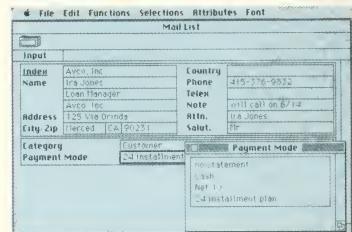
Bulk Mailer eliminates duplicates, a crucial feature for anyone tracking a list of customers. It prints one to four labels across, addresses in the middle of envelopes, labels one-by-one as needed, and tractor-feed envelopes. It can print combinations of Search Codes, Expiration Date, CAR\_RT SORT, or Record Number on the first label line. You can also include a greeting message, such as "Merry Christmas," of up to 28 characters.

This simple but powerful product can sort by zip, customer type, date of last purchase, and so on. Entry defaults are easy to set up, allowing you to preset frequently entered items such as city, state, zip, or other codes. The Zip field can be used either for CAR\_RT SORT, or full 9-digit zips. Bulk Mailer lets you easily produce a mailmerge document, completely formatted and

ready for merging with Microsoft Word.

I put Bulk Mailer to work within an hour and I can recommend it to anyone working with any small to moderate-size mailing list.

**#1090 Bulk Mailer:** From Satori Software  
Retail \$125 Icon Review \$95



## Mail Manager

Handles small to medium-sized mailings, up to about 1000 names. Mail manager is very easy to use, with strong sorting capabilities.

**#1031 Mail Manager:** From Softech Microsystems  
Retail \$119 Icon Review \$79

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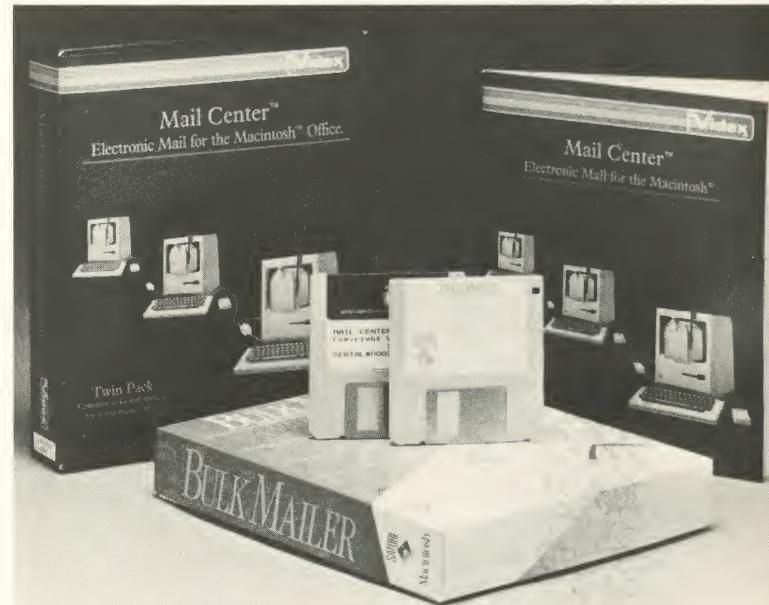
## Anybody Home? Mail Center

By John Duhring

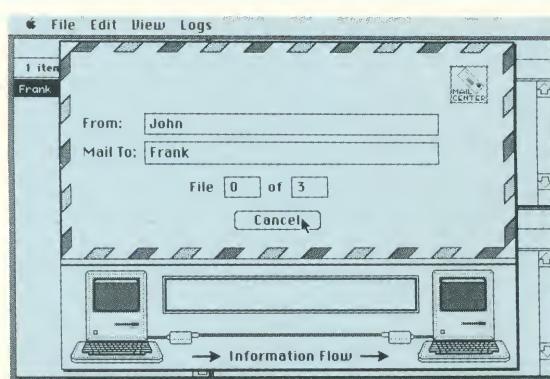
If you have more than one Macintosh in your office you'll eventually want to network them, which you can do right now with AppleTalk cables (at \$50/set). You can also share files using Mail Center without waiting for an expensive file server. We use Mail Center to send rough articles and screen shots back and forth to be edited before being sent to the typesetter. Before Mail Center, someone would have to eject the disk containing the file, walk to the other person's desk, wait while they quit applications and insert the disk reserved for rough drafts, insert the disk with the file, copy the file, eject the disks, then insert the applications previously being used. No more!

Mail Center includes two programs: Application and Receive. To receive files, you need only have the Receive program installed in your Desk Accessories. We keep the Send Application on our System disk. Now, when someone completes work on a file and wants to send it, they simply call up Mail Center and double-click the recipient's name. A mailbox appears on the receiver's screen with the flag up, and a tone sounds. The file is automatically received and an entry appears in both the sender's and receiver's Mail Log. That's all it takes. The receiver can open the "mailed" file at his or her leisure, and the sender goes back to work without having to get up.

Two conditions can create a snag in installing the Receive desk accessory. First, you must have at least 12K free on your system disk. Also, there is a maximum number of desk accessories you can have; we think it's 18. If you've filled the accessories, you'll need to use the Desk Accessory Mover to replace one with Mail Center. The package is easy to use, but take the time to read the brief manual. Mail Center is also copy-protected, and the master is required for hard-disk operation.



Videx offers Mail Center in a Twin Pack or Six Pack, with each having one Desk Accessory installation program and two or six Applications and copies of documentation, respectively. There's no need to wait for AppleTalk file servers — you can use AppleTalk now to save time and money with Mail Center.



It's point and click to send files. The receiver hardly notices any variation in the performance of his or her application.

**Mail Center:** From Videx  
Requirements: AppleTalk  
**#1185 Twin Pack**  
Retail \$299  
Icon Review \$209  
**#1186 Six Pack**  
Retail \$499  
Icon Review \$349

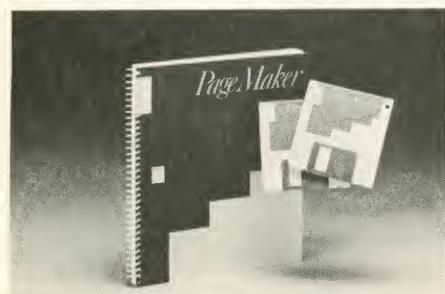
## PageMaker

PageMaker makes the job of designing pages for your publication a simple, rewarding task. If you design pages for any publication, you must look at PageMaker. You'll find PageMaker offers features not available in some expensive page-creation software running on dedicated systems.

With PageMaker, you can create pages using your intuition and imagination! You start by defining the page margins and number of columns, and then placing the text or graphics where you wish. You can choose text files from MacWrite or Microsoft Word and graphics files from MacPaint, MacDraw, or other programs with compatible formats. Special tools let you create boxes, rules, circles, and tints, as well as crop graphics or change their proportion or size.

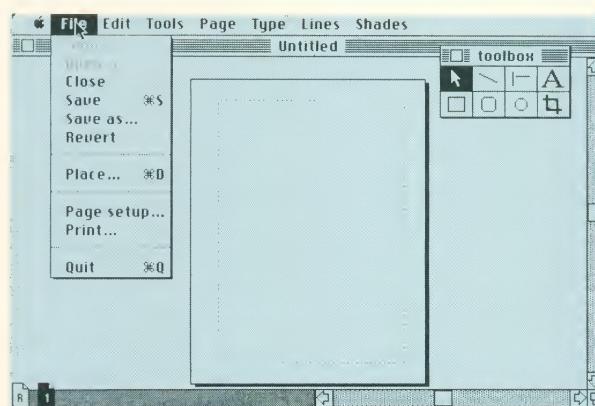
PageMaker eliminates many mundane steps from the more traditional, tedious, method of page creation used by authors and artists — rekeyboarding copy into a typesetter and pasting galleys and art on boards. The author can use word processor to create text in the desired size and style, eliminating the type specification process. The artist doesn't need to produce a layout of a page because the actual type and graphic elements are shown on the Macintosh screen. When the page is finished and output, it is camera-ready art suitable for immediate reproduction.

Using the mouse, you can place text and graphics without touching the keyboard. You create a page using only the mouse to grab, place, and move elements, while viewing the results in a real-time display that accurately represents the final output. PageMaker outputs to either the LaserWriter or ImageWriter. Sixteen pages of output can be stored in a file.

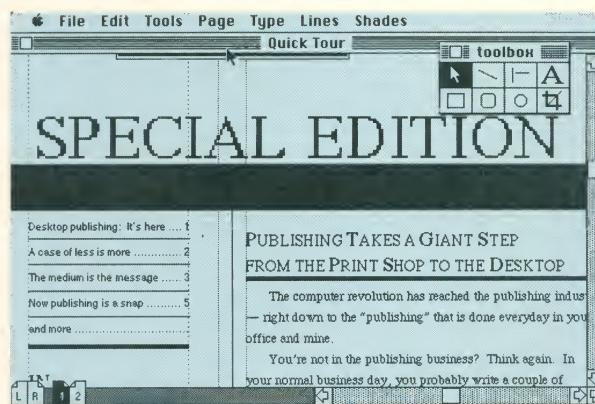


Because PageMaker is so easy to use, a wide range of people can do page makeup without knowledge of type or page makeup skills. You can keep manipulating elements on the page until they look good. Of course, no program can compensate for poor design.

When creating text files, you use MacWrite or Microsoft Word to specify



Here is a page set up with your guidelines, waiting for you to add text and graphics.



An actual-size display of the upper-left-hand portion of the first page of the Quick Tour exercise.

size and style of the text. You can specify bold, italic, and other faces, as well as formatting such as centered, ragged right, justified, and so on. PageMaker will place text in two fashions. The first is by filling your text file into columns, keeping the size and style of the type but changing the width to match the column width chosen for your page. The second is a free-form fashion — where whatever size, style, and width you have created with your word processor is used. After the text is placed, you can still use PageMaker's text editor to make those pesky last minute changes. You can also use the text editor to fit copy around graphics.

PageMaker comes on two disks: a PageMaker System disk and a PageMaker Master disk. The system contains

a "Quick Tour," an excellent way for a new or prospective user to see what PageMaker can do. In the Quick Tour, you will finish laying out a two-page newsletter. Page one is finished, and you'll finish the second page by placing text and graphics, moving them around, correcting text, and trimming a graphic.

Aldus has brought automated layout to a level never seen before on a computer system not dedicated to page creation, and is taking a pivotal role in the low-cost laser typesetting revolution. PageMaker is well worth the price, considering the savings in time and money that will result from its use. We highly recommend PageMaker for the experienced or novice user.

*Editor's Note: PageMaker is the only page layout package for the Macintosh that currently meets Icon Review's high standards. Unfortunately, Aldus has chosen to make PageMaker available only through selected Apple dealers at this time.*

**PageMaker:** From Aldus Corporation  
Requirements: 512K, external or hard disk  
Retail \$495

**NOT AVAILABLE THROUGH ICON REVIEW AT THIS TIME**

**Icon**  
**Review**

**CALL TOLL FREE!**  
**800/228-8910**

**In California**  
**800/824-8175**

*Note to Macintosh Publishing Enthusiasts: Although PageMaker is the best page layout software package available at press time, competition is coming! Both MacPublisher II and Typographer from Microsoft (when they are shipped) promise similar functions at half the price. We recommend you subscribe to Macintosh-publishing magazines to keep abreast of late-breaking developments in this fast-moving field.*

Read More About the Publishing  
Revolution In  
**Desktop Publishing**  
Magazine

Dedicated to those who publish information in printed or electronic form, *Desktop Publishing* magazine offers a unique perspective on the latest developments in this rapidly expanding field. *Desktop Publishing* covers the entire range of publishing with personal computers, including IBM Personal Computers and compatibles as well as the Macintosh. From the same publishers who bring you *User's Guide to CP/M and PC User*, *Desktop Publishing* will cover products in this category in the same clear tutorial style for which its sister publications are famous.

Besides tutorials, *Desktop Publishing* will feature timely, in depth product reviews, tips on how to integrate text and graphics, techniques for

producing appealing graphics and typography, profiles of successful applications, information on data communications and electronic publishing, strategies for integrating equipment and products from different manufacturers, and blockbuster interviews. For example, the first issue features an interview with the president of Adobe (the publisher of the Postscript language that drives the LaserWriter) and techniques on using the LaserWriter from an IBM PC. You can get 6 issues of *Desktop Publishing* annually at the low introductory price of \$18 through Icon Review.

**#1262 Desktop Publishing Magazine**  
Subscription: From User Publications  
Retail \$24 Icon Review \$18

*Producing Professional Documents  
On Your Mac? Read  
Personal Publishing Magazine*

*Personal Publishing* Magazine is an essential guide to the exciting "personal" publishing industry. This industry is typified by such products as PageMaker, Thunderscan, MacVision, and the many clip art and graphics packages available for the Mac.

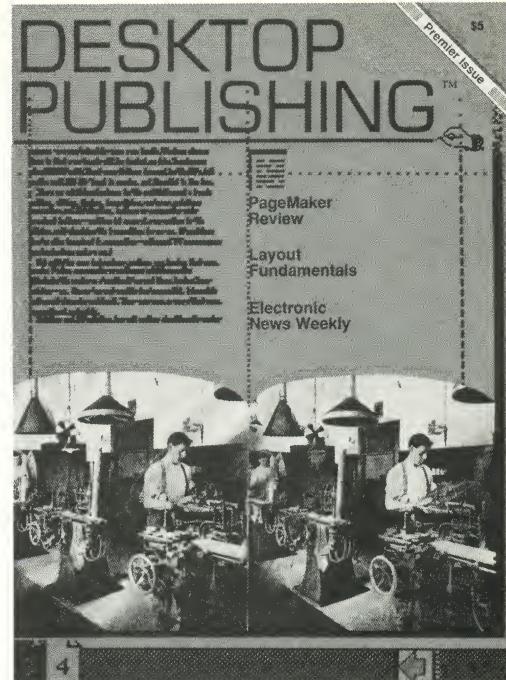
If you are interested in using your Mac to create newsletters, flyers, documentation, reports, resumes, catalogs, books, posters, or other publication-grade art, *Personal Publishing* will provide you with product reviews, tips on how to use the products effectively, and case histories of other Mac owners who are using their Macs as publishing tools.

In addition to product and application articles, *Personal Publishing* gives you examples of publications and documents created using such products. The magazine itself is created using a Mac, LaserWriter, and page-makeup software. The articles are well written and illustrated, emphasizing the need for good design in personal publishing.

If you use your Mac to create reproduction-grade publications, or just to turn out your computer club's newsletter, *Personal Publishing* will provide you with valuable information on this growing application for the Mac.

A one year subscription brings 12 issues of *Personal Publishing* to your home or office for the low Icon Review price of only \$30.

**#1261 Personal Publishing Magazine Subscription**  
From The Renegade Company  
Retail \$36 Icon Review \$30



*Real Type, Graphics From Your Mac  
Mac Typesetting Club*

Typesetting is easy if you own a Macintosh, and Aptos Post Typography makes it even easier with the Mac Typesetting Club.

A yearly fee entitles members to a 10 percent discount on all their Macintosh typesetting done on Post Typography's new PostScript-driven Allied Linotype Linotronic 100.

The Linotronic 100 will typeset any Macintosh file at close to 1500 dots per inch (the LaserWriter's resolution is 300 dots per inch). Pages created with PageMaker, ReadySetGo or MacPublisher are typeset as formatted on the Macintosh. What you see is what you get in high resolution on phototypesetting paper. Apple LaserWriter fonts are 100 percent compatible with the Linotronic.

To have Macintosh files typeset, members simply mail their diskettes to Post Typography. Type is set and returned by first-class mail within 72 hours of receipt.

Members receive the Mac Typesetting Club packet containing a membership card, discounts on a variety of Macintosh products and services, and a quarterly newsletter containing tips on how to use the Macintosh for publishing.

Post Typography has been providing what-you-see-is-what-you-get typesetting since March, 1984, with Apple's Lisa and a digital typesetter. They introduced their Mac typesetting system in January, 1985, when they started doing screen dumps from MacPaint.

Post Typography typesets MacPaint screens for *Nibble Mac* and *Icon Review*. They also have typeset numerous Macintosh user manuals, books and periodicals.

With their new Linotronic 100 Post Typography can typeset any file created on a Macintosh, saving publishers from 67 to 75 percent of the cost of traditional typesetting.

Persons with questions about the Mac Typesetting Club are invited to write or call Aptos Post Typography, P.O. Box 910, Aptos, CA 95001; (408) 688-7474.

**#1263 Mac Typesetting Club:** From Aptos Post Typography  
Retail \$69.95 Icon Review \$59



Premier Issue  
\$5

## Most Powerful Business Package On The Planet?

### Excel

By Amanda C. Hixson

With Excel, Microsoft has taken a flanking tactic to compete with Lotus for software supremacy. Rather than build this ultimate spreadsheet for the MS-DOS market and compete head-on with 1-2-3 and everyone else, the Microsoft engineers took their time to build the product for the Macintosh. The results are dazzling.

Excel should appeal to almost anyone in business who needs a power spreadsheet or integrated program. However, first-time users will find it extremely "friendly" and easy to learn. This isn't to say that there isn't plenty to learn in Excel, but you can easily benefit from the program without being forced to learn everything.

Designed around 1-2-3's integrated spreadsheet concept, Excel has a lot in common with that program — spreadsheet (16,384 rows by 256 columns), database, charting, macros, speed, functions, and power. What makes Excel different are the features it has that 1-2-3 lacks: multi-level macros, array calculations, custom formatting, user defined functions, and the Macintosh interface.

#### Powerful Macros

Excel has three methods for automating your worksheets: command, function, and array macros. Command macros expedite repetitive tasks. To create a command macro, you simply perform the task you wish to automate

while recording your keystrokes with a macro recorder, assign a three-key identifier, and then type in the identifier whenever you want to use those keystrokes. If that isn't enough, you can also use Excel's powerful macro language.

Excel's second macro — the function macro — lets you create custom-key commands to augment the many functions already available in Excel. With a function macro, you create a formula, save it as a macro, and enter it into cells as necessary. Such macros expand the usefulness of Excel by allowing you to fine-tune it to better serve your requirements.

Perhaps the single most powerful feature in Excel is its ability to handle array mathematics and create array macros (Excel's third type of macro). Most spreadsheets limit you to performing linear calculations; no matter how complex your calculation is, the final result is always a single value. However, Excel permits you to calculate multiple values against other values to arrive at multiple results. This probably sounds confusing, but it really isn't.

#### More Comprehensive Capabilities

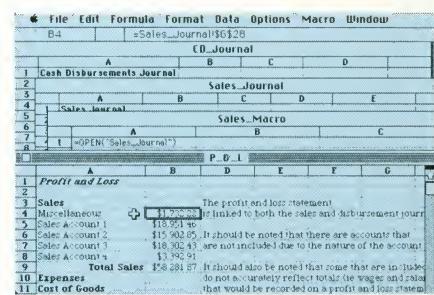
In addition to macro and array features, Excel offers custom cell formatting (for example, dashes are put into Social Security numbers for you automatically); a database that works almost identically to the one in Lotus 1-2-3, with the added power of special database macro functions; charts that change as dependent worksheet values are updated (including values from linked worksheets); and preview printing that lets you send your formatted pages to the Macintosh screen prior to printing (if you see a page you don't like, you can go back into the worksheet and make changes).

For protection, you can lock cells to prevent their destruction and to prohibit errant entries. It is also possible to keep important tables and cells out of the reach of novices through linking (a process of making a worksheet, or worksheets, dependent on data in other worksheets). Linked worksheets can be protected with password security, thus preventing unauthorized access.

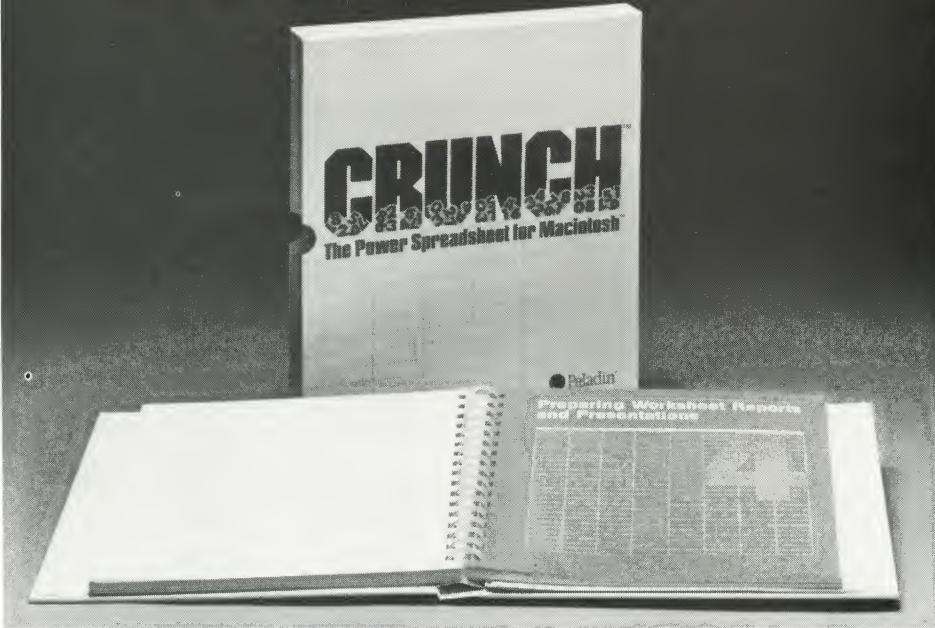
Excel comes with the one feature that every Macintosh application should have: the File menu contains a Delete... command that allows you to delete files from your disk without quitting the application and going back to the Finder!

A super time-saver is the Resume

Excel feature. Excel allows you to take a snapshot of your desktop, which saves the combination of files exactly as you left them. So, if you need to leave your work in a hurry, you can return to the files just as they were set up when you quit the program. Double-clicking a Resume Excel icon will boot up Excel and open the files just as you had them laid out when you took your snapshot (but be careful, this file cannot be opened from within Excel).



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## Is This Spreadsheet For You?

### Crunch

By Bill Kling

Paladin Software's Crunch spreadsheet package combines a superb implementation of the Macintosh philosophy with, unfortunately, the neglect of some features that, as a spreadsheet user, I have come to expect.

#### The Pros

Crunch's command icons make it easy to set up a simple spreadsheet. If icons feel too much like training wheels to you, just hide them and use the menus. Recalculation is quick. Crunch draws graphs (your choice of pie, line, bar, or area charts) with amazing speed. And they look sharp.

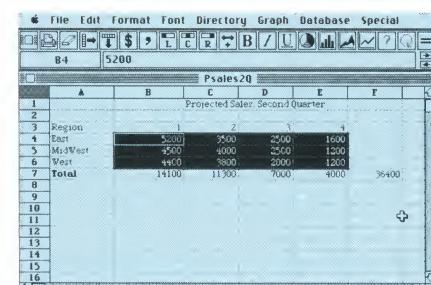
Do you want power? How about multiple windows — go ahead and litter your screen with different spreadsheets. You want to link data from one spreadsheet to the formulas of another? Can do! Have you ever wanted to define your own functions? You can do it in Crunch. I recognized immediately that this package is far more powerful than Multiplan or Quartet. A Crunch spreadsheet can grow to 250 columns by 9999 rows, and there are 74 built-in functions, including math, statistical, financial, and logical functions.

Crunch lets you create month name labels on a report or budget easily. Type *Jan* and copy it over the next 11 cells. You'll see *Feb*, *Mar*, *Apr*, and so on appear. If you prefer, the month and/or year can be spelled out. And you needn't start with January. Another nice thing — Crunch has dumped the at-sign before functions convention. Just type the function, *SUM(C4:C16)*.

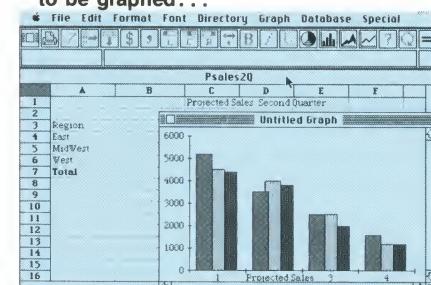
Crunch answers the recent demands for documenting spreadsheet formulas with a cell-auditing feature. Write and save notes about those complex, important formulas. (You can even print your documentation separately from your spreadsheet.)

For security, you can password-protect a spreadsheet so that an unauthorized user can neither change protected cells nor view hidden cells. Hiding amounts to pasting a little gray band-aid over a cell.

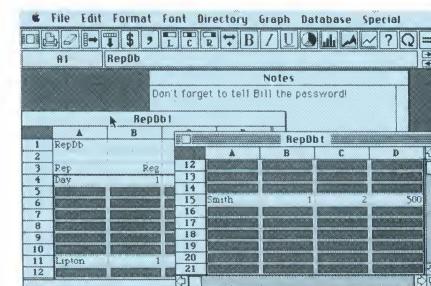
Crunch promises more power features, including Macros, to be distributed free to their customers. With macros you can record your own keystrokes, then either play the resulting



**Creating a graph is easy! Select the data to be graphed...**



**...then click the graph icon or select a graph type from the Graph menu.**



**Crunch lets you open multiple windows, and protect cells from prying eyes.**

macro back or edit it before putting it to work. Also to come, provisions for using the SYLK file format to convert "foreign" fields to Crunch format.

How about the database? You can sort and query. Sorting is easy, querying a little difficult. Because the database does not need field names, you compose your queries in the cells *below* the database by placing the query formula in the appropriate column. For example, if you want to search for Orders greater than 1000, you find a cell in the Orders column, below the database and type  $? > 1000$ .

Crunch covers non-matching records with a little grey "hide" box. This caused me some difficulty while doing some simple statistical analysis from query results.

#### The Cons

The following list of caveats represent other disappointments I had. Read over the list and balance them against Crunch's favorable features. What effect will the features and the caveats have on the kind of work you do?

Crunch has range names, but they only work in functions. *SUM(Sales)* is legal, but *quantity \* Price* isn't.

You can't change formulas into numbers. Depending on your kind of work, this may not be a problem. Many people, like stock traders, need to generate numbers with formulas, then take the numbers elsewhere. Outside of copying numbers by hand, you're stuck. Paladin may fix this in the future.

Crunch assumes any formula makes relative cell references. If you want to make an absolute cell reference, just prefix the reference with an at-sign —  $@H23$ . The problem? No mixed reference, such as an absolute column and relative row.

The manual gives new meaning to the word *terse*. At the beginning, you get an eight-page, hands-on tutorial. After that, it's a matter of looking up the subject you want to pursue and following the steps. That's fine for things like opening or saving a spreadsheet. But when you're after more complex activities, like spreadsheet linking, pictures without examples can be pretty frustrating. You may find yourself spending a lot of time just figuring out what a feature does or can do for you.

#### Conclusion

In many applications, these caveats will not cause difficulty. If you're one of those, you can benefit from Crunch's unique blend of powerful and easy-to-use features.

#### #1089 Crunch:

From Paladin Software

Requirements: 512K

Retail \$295 Icon Review \$149

Real Estate Scions Take Note!

## Residential Real Estate, Real Estate Investment Analysis, and Financial Analysis

To help you analyze your financial future, Real Data has refined two real estate templates and one personal finance template. Templates contain formulas developed by professionals to help you solve financial problems and make educated projections. Just plug the templates into Multiplan or Jazz, then insert your own figures to examine a myriad of financial possibilities. Disks come with two copies of each file, one for Multiplan, one for Jazz.

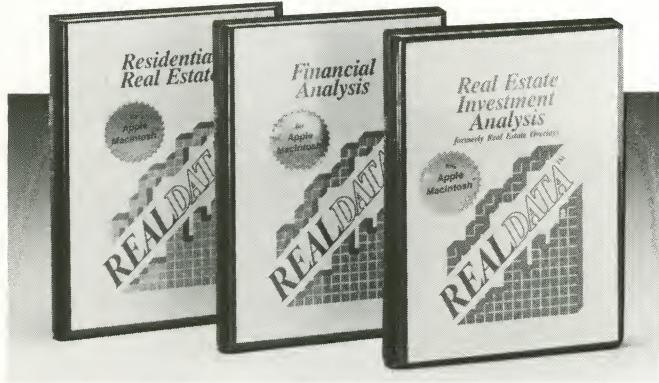
From Real Data, Inc.

Requirements: Multiplan or Jazz

#1196 Residential Real Estate  
Retail \$100 Icon Review \$69

#1195 Real Estate Investment Analysis  
Retail \$150 Icon Review \$99

#1194 Financial Analysis  
Retail \$100 Icon Review \$69



Integration At the Price of An Accessory!

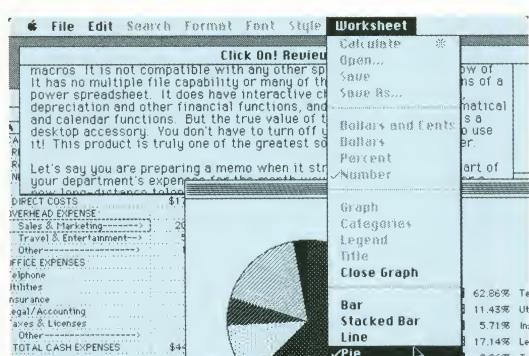
## ClickOn Worksheet

By John Duhring

ClickOn Worksheet gives you spreadsheet and integrated graphics power in a desktop accessory. It's for those of us who don't spend much computer time working through financial projections and just want to complete expense reports, tax forms, or departmental budgets without leaving our word processor or other application.

Let's be right up front — ClickOn Worksheet does not have macros, nor is it compatible with any other spreadsheet that we know of. It has no multiple file capability or many of the specialized functions of a power spreadsheet. But it does have interactive charting, lookup tables, depreciation and other financial functions, and calendar functions. But the true value of this desktop accessory is that it's a great time-saver! This product is truly one of the greatest so far!

Let's say you are preparing a memo when you realize that a pie chart of your department's expenses for the month would strengthen your request for a new long-distance telephone service. Instead of quitting MacWrite and looking for your spreadsheet disk, you simply pull up the ClickOn Worksheet from your desk accessories menu. Creating a pie chart is a snap — a new Worksheet menu



Integration for the price of an accessory: moving the pie chart into your word processing document is a piece of cake!

For Simple and Speedy Business analysis . . .

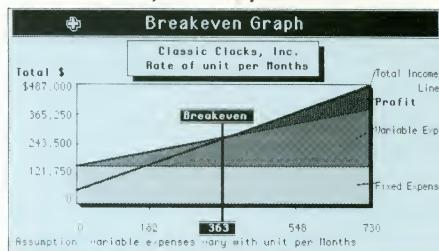
## Profit Projections/Breakeven Analysis

This handy little package gives you a lot for your money. It lets you analyze and project fixed costs, variable costs, sales, profits or losses, and the break-even point without facing the complexities of designing and using a spreadsheet.

Need a loan? Armed with Profit Projections, you can generate a preformatted report that reveals profit or loss along with a series of graphs that show where your money went and how many more widgets you need to sell per month to pay the rent. When you take this printed report and several "what if" versions of your break-even graph to the bank with you, you'll be able to confidently explain how you will repay the loan.

Profit Projections is a simple but powerful tool for any businessperson who needs to see quickly where all that money went!

#1038 Profit Projections/Breakeven Analysis  
From Harris Technical Systems  
Retail \$65 Icon Review \$49



Profit Projections/Breakeven Analysis gives you crucial break-even information in a convenient graphic form.



appears to the far right of your menu bar. You select the range of numbers from your expenses file and chart from the Worksheet menu. Add a title to the graph from your

spreadsheet, then legends for your expense categories. Now Copy it using the Edit menu from your active application program, close the worksheet, and Paste the chart into your memo.

ClickOn Worksheet handles scrolling uniquely. To move around in it, you "grab and fold" the worksheet with the mouse. The twenty-column by fifty-row size of the worksheet is adequate for most casual spreadsheet users, and the worksheet comes packaged with a number of handy spreadsheet templates designed by the Apropos group from Los Altos.

The ClickOn Worksheet is not for the power spreadsheet user. For them

we recommend Jazz or Excel. For nearly everyone else, we highly recommend putting your spreadsheet use in proper perspective. With twenty columns by fifty rows of spreadsheet power, the ClickOn Worksheet will get you through modest jobs fast.

#1069 ClickOn Worksheet: From T/Maker Graphics  
Retail \$79.95 Icon Review \$59

## Instant Access to Boilerplates

### QuickWord

If you frequently use the same words, phrases, or even paragraphs in the documents you prepare with your word processor, QuickWord can save you retyping by expanding simple abbreviations into full text structures. After you install QuickWord with the Font/DA Mover, you can access it as a Desk Accessory in the Apple menu. While QuickWord is selected, it adds an extra menu to the current application's menu bar.

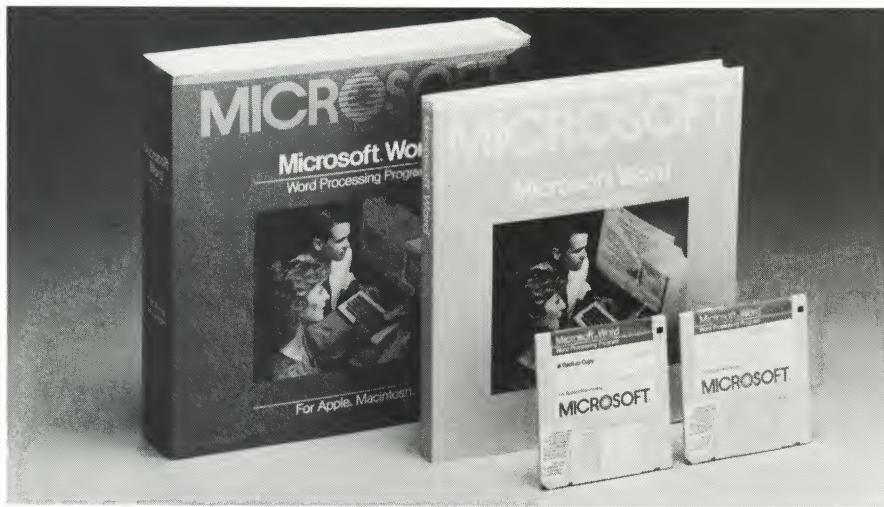
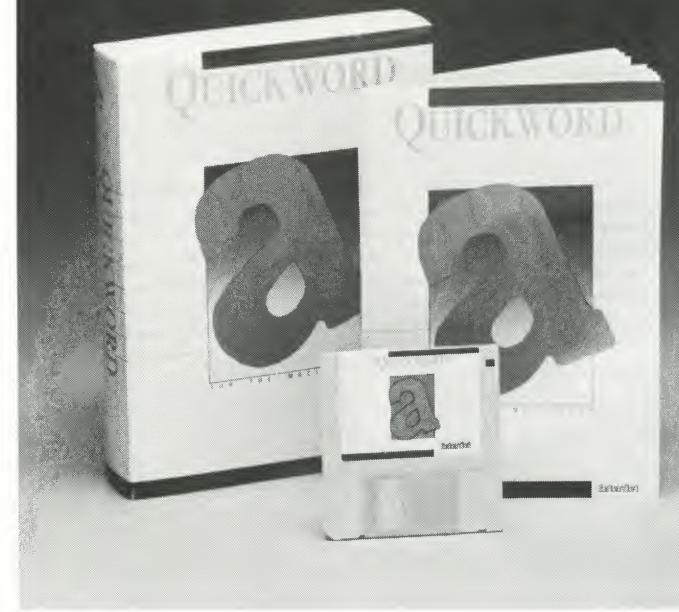
From the QuickWord menu, you create, edit, and load a QuickWord abbreviation definition table. In the left column of the table, you type an abbreviation; then in the right column, type the text you want QuickWord to insert when you type that abbreviation. Then you return to your application by clicking on its window. When you type an abbreviation listed in the active QuickWord table, QuickWord expands it to the specified text.

You can create different QuickWord tables for different tasks. For example, you might have one table with titles and headings for spreadsheets and another with company address, standard body, and closing for correspondence. You define multiple-line text blocks either by typing text with the returns exactly where you want them to appear or by letting the text wrap in the QuickWord table window.

We used QuickWord to insert the standard headings and purchase information tables in many of these reviews. We found it much faster to use than the Scrapbook because our fingers never had to leave the keyboard to mouse around with menus, and more powerful than the Clipboard, because we could access an unlimited number of text blocks with just a few keystrokes.

If you're tired of typing the same thing again and again and could use some powerful electronic help, QuickWord is for you!

**#1169 QuickWord:** From Enterset *Retail \$59.95* **Icon Review \$39**



## For Advanced Word-Processing Features Microsoft Word

Microsoft Word is essential for anyone serious about writing with the Macintosh. You can format text with type faces and graphics just as you can in MacWrite, and then move on to take advantage of Word's unique features. It's a pleasure to open three documents, each in its own window, split the screen in one, resize to fit, and deftly cut and paste from one to another. You'll also appreciate the keystroke cursor commands, headers, footers, multiple columns, variable line spacing, and glossary for storing and inserting boilerplates. Microsoft now ships an enhanced version that makes the most

of Apple's LaserWriter.

Microsoft File and Word integrate to generate a very sophisticated mail-merge and form-letter capability. The help command is nifty too. Push "Command?" and click a menu selection, then presto! The relevant help screen appears. You'll need the hefty manual to master the advanced features.

If you spend much time writing, you'll love Microsoft Word. Nothing else available supports such a wide variety of features.

**#1050 Word:** From Microsoft *Retail \$195* **Icon Review \$114**

## Now Your Mac Can Proofread! Mac Spell Right

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## Statistics: A Heated Race Gets Hotter!

### StatWorks, StatView, NWA StatPak, and StatFast

By David Morganstein

The wave of new Macintosh software products includes four notable statistics packages. A quick overview of the capabilities and limitations of the packages appears in the table below.

The programs overlap in many of their functions, although NWA StatPak is clearly the leader in terms of raw functions. It offers stepwise regression, more designs for the analysis of variance, and time series analysis. As for using the Macintosh interface, StatView and StatWorks are unquestionably superior. They have scrolling data windows and access to the clipboard that permits easy data entry from either the keyboard or other applications, such as telecommunications programs.



#### NWA StatPak

This extensive collection of 57 separate BASIC programs is connected by a menu system and is supplied on two disks. NWA performs more operations and computes more statistics than any of the other packages. It offers simple descriptive statistics, multiple regression, up to three-way analyses of variance, multi-way contingency tables, non-parametrics, and computes probabilities for a host of distributions and can be used to conduct time-series analyses. Unlike the other packages, it can perform a stepwise multiple regression. The time-series functions include de-seasonalizing data, lag and lead transformations, auto and cross correlations, and Fourier analysis.

Practically all of the analyses read the data from disk, eliminating any ceiling on the number of cases that can be processed. However, MS BASIC runs slowly on the Mac, so working with a large number of cases can be time consuming.

Unfortunately, NWA on the Mac is just like the earlier versions developed for the CP/M operating system. It is not "Mac-like;" it makes no use of pull-down menus. You cannot cut and paste data or graphics between applications, although you can output the results to a BASIC data file which can be converted for use in a word pro-

cessor. StatPak makes little use of the Mac's graphics. NWA has simply ported its BASIC programs to the Macintosh.

```
LOW LIMIT {DX = 3000 SCALE = 1:1}
60000  I==== <25.0% >
63000  M=====+--- <50.0% >
66000  I====*---+--- <81.2% >
69000  I====+---+---+ <100.0% >
72000  I====+---+---+ <100.0% >
Output: S(creen), P(rinter), F(ile), or Q(uit)?
```

#### NWA StatPak Histogram Uses Character Graphics

The lengthy, easy-to-use manual is the same one used for the IBM PC and CP/M machines. It contains example output from nearly every routine. A brief Macintosh-oriented addendum is included.

I was most disappointed with NWA's error handling. On several occasions I was caught in a loop and had no avenue, short of stopping the program, to exit.

#### StatFast

Advertisements for StatFast highlight its speed. Written in compiled Fortran, StatFast does run fairly quickly. It provides the most commonly used analyses, such as descriptive statistics, multiple regression and up to a three-way analysis of variance and contingency tables.

Unfortunately, StatFast is not at all "Mac-like." It has no pull-down menus and no data window with editing capabilities. It does not support the Clipboard or Scrapbook, and its graphics are of the text variety. StatFast provides for two-variable scatterplots and univariate bar graphs. Note that StatFast variables are identified only by number. No descriptive alpha-numeric labels are permitted.

The manual is exceedingly brief and incomplete. As with NWA, I was distressed by StatFast's error handling. When I asked to read a file that wasn't there, I was kicked out of the program and thrown rudely back to the Finder.

#### StatView

Written in Pascal for the Macintosh, StatView takes full advantage of pull-down menus, windows, high-resolution graphics, and cut and paste functions. It is so "Mac-like" that you don't need a manual to learn to use it! As for analyses, StatView provides for simple descriptive statistics and graphics, multiple regression, two-way analysis of variance, two-dimensional tables, and non-parametric tests comparing two or

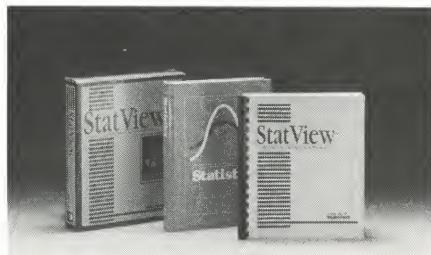
Macintosh Statistical Software Comparison Table				
Price	NWA StatPak \$395	StatFast \$99	StatView \$199.95	StatWorks \$125
Language	BASIC	Fortran	Pascal	Pascal
Descriptive Statistics	Y	Y	Y	Y
Handles Character Data	N	N	N	Y
Regression				
Simple	Y	Y	Y	Y
Multiple	50 ind vars	25 ind vars	18 ind vars	Y
Stepwise	Y	N	N	N
Analysis of Variance				
1-way	CR, RB	U	U	U
2-way	B	U	B, 40-levels	B
3-way	B	U	NA	NA
Maximum No. of Cells	??	16	??	??
Contingency Tables	2-way	2-way	2-way	2-way
Number of Levels	??	10X10	8X4	??
Nonparametrics	Y	N	Y	Y
Time Series	Y	N	N	N
Mac Adaptation				
Has Pulldown Menus	N	N	Y	Y
Supports Clipboard	N	N	Y	Y
Has Data Window	N	N	Y	Y
Graphics				
High Resolution	N	N	Y	Y
1-variable Histogram	Y	Y	Y	Y
2-variable Histogram	N	N	N	Y
2-variable Scatterplot	Y	Y	Y	Y
3-variable Scatterplot	N	N	N	Y
Pie Chart	N	N	Y	N
Box & Whiskers Plot	N	N	N	Y

(B=Balanced, U=Unbalanced, CR=Completely Random, RB=Randomized Block, NA=Not Applicable, ??=Unknown)

more groups. StatView appears to hold all data in memory, although I could find no reference in the manual to a maximum number of cases that it can handle.

One of StatView's strongest features is how easy it is to use the data window. Similar to the Multiplan data window, you can scroll vertically or horizontally, change column widths by clicking and dragging on the between-column divider and cut and paste columns or rows. Unlike Multiplan, it allows you to select any font from your system for display of your data; however, this capability applies only to the data window, not the computed output. I had no trouble cutting a standard data set from the Scrapbook and pasting it into StatView.

One of the menu items is "Utilities." Among the many useful options are one and two variable transformations, recoding, sorting, and selecting.

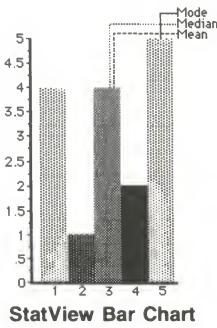


You can use any of the four standard functions (+, \*, or /) to combine a variable with another variable or a constant. You can apply a wide range of transformations to a single existing variable or create a new random variable. The recode option is easy to use and lets you convert a quantitative variable into discrete levels in a matter of seconds. By selecting all rows meeting a set of logical conditions you can restrict your analysis to specific case types.

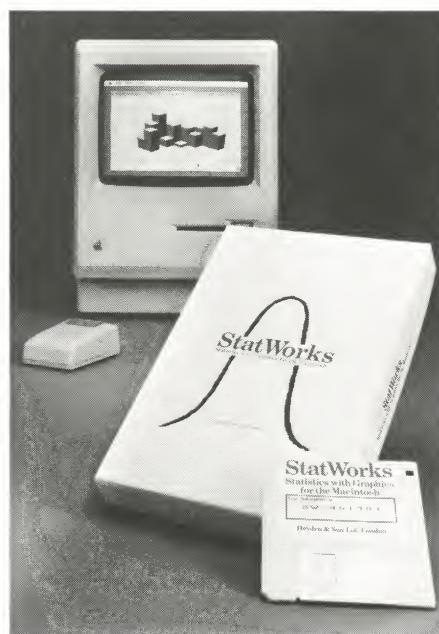
The graphic displays include scattergrams as well as bar, line, and pie charts. The charts can be drawn automatically or you can tailor the display ranges to your interest. The bar chart does not display the horizontal scale.

Bars are labelled in an unusual way — from number one to the number of bars, each having its own shading. StatView graphics can be copied readily into the Clipboard using a menu option.

While I have



seen only a draft manual for StatView, it appeared to be easy to follow and read, consisting mainly of examples. Beyond the examples, the manual did not contain a reference section on each function of the program.



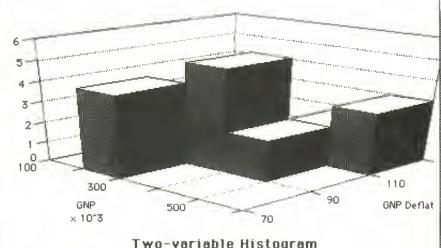
### StatWorks

Like StatView, this program looks and feels like a Macintosh application. It supports just about all of the Macintosh interface including an easy-to-use data window. Each output window containing computational results or graphics can be saved to the Clipboard and pasted elsewhere as MacPaint documents or can be sent to the printer. As you can see from the comparison table above, StatWorks performs the basic set of statistical analyses including descriptive summaries, multiple regression, two-way ANOVA and non-parametrics. StatWorks holds all data in memory, which provides for quick analysis but limits the number of data points to about 1500 on a 128K Mac, or several times that number on a 512K Mac.

While its data-management features lack some of the ease of recoding and record-selection methods provided by StatView, StatWorks has several capabilities not found in the other packages. The data window has a "home button" that immediately brings the cursor back to the upper-left-hand corner. By clicking in the title bar, any window can be made to grow to fill the screen of a Mac or Mac XL. It can handle character data and use them to define the analysis of variance

levels; for example, a variable can consist of the text entries "male" and "female." As with StatView, the original data can be transformed through the use of logs, powers, and algebraic combinations of other two-variables.

StatWorks has several unique graphics displays, including two-variable histograms, three-variable scatter plots and box and whiskers plots.



### Histogram Unique to StatWorks

The manual is organized around the program's menus. It begins with a quick menu guide and then goes into depth on every menu option.

Unfortunately, StatWorks comes on a protected disk. It can be copied to a hard disk, but does require a periodic insertion of the Master disk once every two weeks thereafter. This is a bit of a nuisance to the hard disk user and should be eliminated.

### Recommendation

If you have specific analytic needs, such as stepwise regression, time series, or the computation of probabilities for specific distributions, only NWA StatPak provides these functions. Only if you need to do a regression on a large set of data (more than 1000 cases), would I recommend NWA StatPak because it doesn't hold the entire data set in memory for such analyses.

If your analytical requirements can be met using StatView or StatWorks, these two are clearly the programs of choice. They are designed for the Macintosh, use the Macintosh interface, and their analytical functions are about the same. StatView is stronger in data management (recode and case selection) while StatWorks handles character data, is less expensive, and has better graphics.

*David Morganstein, a professional statistician, is President of the 6,500-member Washington Apple Pi.*

**#1060 StatWorks:** From Cricket Software  
Retail \$99.95 **Icon Review \$79**

**#1078 StatView** From BrainPower  
Retail \$199.95 **Icon Review \$99**

**#1086 NWA StatPak**  
From Northwest Analytical, Inc.  
Requirements: Microsoft BASIC  
Retail \$395 **Icon Review \$279**

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For every product we review, there are several that don't make the grade. Here's a brief mention of some products that we find disappointing for one reason or another.

### ReadySetGo

Doesn't allow laying out from first through last page, displays only half of an 8½ by 11 page, and scrolling requires an awkward Show Page command instead of using scroll bars. The new version may fix these problems, but you avoid the old!

### Statfast

Not Mac-like. Includes only a limited number of functions a statistician needs, while providing functions that can be more easily implemented on a calculator. Crude plots don't use superior Mac graphics.

### MacMate

We couldn't get the print spooler to work, which is the primary reason to buy this product. Very brief documentation is included on disk, but there was no telephone number at all on the package or on disk — no technical support!

### Warner Desk Organizer

Loses data frequently; the Meta function is particularly unreliable. Its compatibility problems with popular programs, and the fact that it runs as the primary application instead of from the accessories menu, severely limit its usefulness.

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Finally, Accounting Software for the Macintosh!

## Back To Basics and Rags to Riches

By Steve Mann

### Back To Basics

Back to Basics' General Ledger has been available for a few months now, and the Accounts Receivable module was just released. Both were converted from the IBM PC version, and they have inherited both strengths and weaknesses.

On the positive side, Back to Basics was developed in conjunction with accounting professionals, and provides a good set of features and strong accounting controls to prevent you from accidentally fouling up your financial records. It's a double-entry system, the preferred accounting method for keeping financial records.

Unfortunately, Back to Basics does not take advantage of the Macintosh user interface. Typically, only one window opens at a time, making the program's operation more complicated than necessary. There are several ways to complete the entry of a transaction, most of them two-step operations like a double-click.

Back to Basics provides you with complete reporting capabilities—all reports can be either viewed or printed. Constant reminders prompt you to back up your data, important for an accounting program. The program also prints checks if you want, an essential feature for many people.

You can handle up to 254 account numbers of 4 digits, 3 cash accounts, and 400-4500 transaction entries per month with Back to Basics on a 512K Macintosh. You can also specify up to ten departments and generate separate income statements for each department. Reports can have up to five subtotals. The program is copy protected.

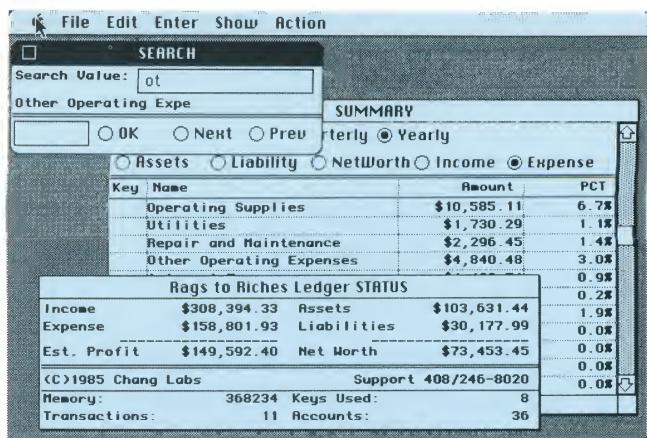
Back to Basics is a workable accounting system for small businesses, but because it doesn't take full advantage of the Macintosh interface, it's somewhat awkward and mechanical.



### Rags to Riches

Rags to Riches lets you count your beans Macintosh style! The user interface is imaginative and intuitive, with keystroke shortcuts and data organization to simplify the whole accounting cycle.

Rags to Riches' General Ledger has five account types (assets, liabilities, net worth, income, and expenses), and five transaction types (checks, deposits, money, payables, and transfers, with the number of transactions limited by



Rags to Riches sports the most pleasing interface of any accounting program to date.

the amount of memory in your system). This is a strange but interesting combination of traditional financial accounting and small business terminology. Your financial records are ordered in a hierarchy — each level has its own window, which can be moved and resized. As data are changed in one window, the change is reflected in other relevant windows.

Unlike most accounting systems, Rags to Riches does not require account numbers. Instead, account titles are used, although they may have embedded numbers. These titles are also the line descriptions on the reports.

The General Ledger is a double-entry system. Accounts Receivable looks like a single-entry system but actually creates double-entry transactions, with a default receivables account for one part of the entry.

The General Ledger has a full set of reports, including financial statements and audit trails. The reports can only be printed, but the data windows include much of what you may need to view (except for the income statement and balance sheet). Accounts Receivable can print customer aging, aging detail, customer lists, and both statements and invoices. These last two differ in the amount of detail printed and the format.

Chang Labs provides excellent customer support. They haven't copy protected Rags to Riches and they've installed toll-free numbers to answer your accounting automation questions even before you purchase the product! Dial (800) 972-8800, or (800) 831-8080 in California.

Because of the ease and power of this program, using Rags to Riches is a rewarding pleasure.

*Steve Mann is a microcomputer specialist on the staff of Peat, Marwick, Mitchell, & Co. accounting firm in San Francisco. He has published numerous articles and product reviews for a variety of trade publications, including InfoWorld and MacWorld.*

*Editor's Note: Mr. Mann examined several other programs, but the two featured here are best to date. Look for a report of others in our Winter issue, including My Accountant from DataPac, the developers of the popular My Office package.*

**Rags-to-Riches:** From Chang Labs

**Requirements:** Macintosh 512K

#1188 General Ledger	Retail \$199	Icon Review \$139
#1189 Accounts Receivable	Retail \$199	Icon Review \$139
#1190 Accounts Payable	Retail \$199	Icon Review \$139
#1191 3-Pack	Retail \$499	Icon Review \$279

**Back to Basics:** From Peachtree Software

#1218 General Ledger	Retail \$175	Icon Review \$119
#1297 Accounts Payable	Retail \$175	Icon Review \$119

# High-End Communications Systems: More Than Modems

## ProModem with ProCom-M, Smartcom II, SmartModem 1200 & 2400, and Transet-1000

By Lawrence J. Magid

Connecting your Macintosh to another computer by phone line requires two items: a modem, and communications software. With arrival of ProCom-M and Smartcom II, Macintosh users now have a choice of high-end communications programs that, when run using intelligent buffers, do much more than just connect computers.

### Smartcom II: A Work Of Art

Smartcom II from Hayes Microcomputer Products, Inc., is the most impressive communications program I've seen on any computer. It gets an A+ when it comes to utilizing the Mac's superb graphics capability. Hayes is the industry leader for modems, and the new SmartModem 2400 just extended the state-of-the-art. But the real story is the software...it's not only fast, powerful and easy, it's a pleasure to use.

The software was designed specifically for the Hayes SmartModem series, but was also capable of working with modems from both Prometheus and Apple (contrary to Hayes' statements that Smartcom II will only work with Hayes modems).

Smartcom II begins with an impressive animation of a monolithic Macintosh, beaming down icons that

remain at the base of the screen. The icons remain for executing phone dialing, printing, etc, simply by clicking. Smartcom II (like Prometheus' ProCom-M) has the ability to create macros to handle all log-on procedures. Smartcom II comes with unique predefined macros for CompuServe, the Source, KnowledgeIndex, the electronic edition of the Official Airline Guide, and "Mac to Mac" communications. These pre-configured macros can be customized, making it easy to add your own account numbers, passwords, and local phone numbers.

I enjoyed the way Smartcom II handled such tasks as connecting to the Source, retrieving and printing electronic mail, going right to *New York Times* headlines on KnowledgeIndex, and accessing the Apple User's Forum on CompuServe. Another unique feature is the Smartcom Canvas that allows two 512K Macs to interactively create and edit graphics on-line.

An extremely clear user interface along with a good on-line help function and a concise and attractive manual make this one of the most effortless communications programs I've used to date. It is truly a pleasure.

### ProModem 1200 Packs Independent Operation

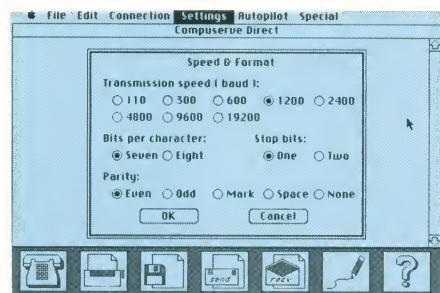
Although the ProModem 1200 from Prometheus abides by the Hayes Command Set (the industry standard), this modem offers features and benefits not available on the Hayes or other modems. The modem is packaged with

a Mac-to-Modem cable, unlike the Hayes modems, which don't include a cable.

The most exciting feature of the modem is its ability to accommodate an optional Communications Buffer. This buffer is sold as an independent option board. The buffer can be configured with between 64K and 512K of RAM. You must have a bit of "hacker" in your blood for this modem, as you have to install the memory chips yourself (unless you buy the options already populated). With the buffer installed, it's possible to unplug the Mac and let the modem operate independently. It can dial or answer the phone, take messages, send out electronic mail or interact with a public information service—all while the computer is off or in use for another task. The 512K model has enough RAM to store the ProCom-M communications program as well as a substantial amount of data. Also, the RAM can be used as a print buffer, allowing you to use your Macintosh while printing documents.

### Software: Macros Make It Move

The ProCom-M software has all the standard communications features along with some nice extras. You can program the software with command or log-on macros. To demonstrate this feature, I created a macro that logged me onto the Source, checked the current price of some stock, then logged off, automatically. What's more, by using the Timed Dial option, all this can be pre-programmed to take place at a specific date and time.



Smartcom II uses icons to your advantage.



Additionally, ProCom-M lets you switch between voice and data all on one line, allowing you to switch out of data mode and carry on a voice conversation with the person at the other end when communicating with another personal computer.

Both the software and hardware I used performed well. The documentation for the modem was sufficient, but the manual for the software looks as if it were put together quickly and produced on a daisy wheel printer. The next version, which I previewed, is being composed on Microsoft Word and printed on the Apple LaserWriter.

For the least expensive electronic mail modem we've seen, the Prometheus system is your choice. Bear in mind, if you don't buy the option boards with memory installed, you'll have to do it yourself. Additionally, you'll need to study the manual to learn the command language for automatic operation. If you can afford the initial outlay (you'll earn it back fast in time saved), the top-of-the-line communications system is a Hayes 2400 baud modem, Smartcom II, Transet-1000, and the Accessories Kit. Add Smartcom II to the reliability of the industry standard Hayes Smartmodem, 1200 or 2400

baud, and you have a package that can't be beat. The Prometheus system is effective—the Hayes package is superb.

*Lawrence J. Magid is executive vice president of Know How Inc., a San Francisco-based microcomputer education company. He's also a Syndicated Columnist for the Los Angeles Times. He frequently writes and lectures on communications and is the co-author of The Electronic Link: Using the IBM PC to Communicate, published this year by John Wiley and Sons.*

**ProModem:** From Prometheus Products

**#1133 ProModem 1200 with ProCom-M Software and RS 232C Cable**  
Retail \$549 Icon Review \$359

**#1179 ProModem Option 1**  
Retail \$99 Icon Review \$85

**#1180 ProModem Option 2**  
Retail \$99 Icon Review \$85

**Smartmodem, Smartcom II & Transet 1000**  
From Hayes Microcomputer Products:

**#1128 SmartModem 1200**  
Retail \$599 Icon Review \$399

**#1129 SmartModem 2400**  
Retail \$899 Icon Review \$639

**#1042 Smartcom II**  
Retail \$149 Icon Review \$99



### Smart Peripheral Controller Transet-1000

The Transet-1000 is a remarkable print and communications buffer, peripheral switch, and more! It lets two Macintosh computers share one printer with print spooling. It can also serve as the network controller allowing two Macs or a Mac and PC to communicate. It employs a Motorola 68008 microprocessor with software-controlled switching of peripherals, so you don't have to change cables. You can program it to download materials by modem at any hour, so it will quickly pay for itself by saving on long-distance telephone bills. It frees you to work productively instead of monitoring your modem or printer.

**#1209 Transet-1000**  
From Hayes Microcomputer Products  
Retail \$399 Icon Review: \$299



# Turbo Turtle, ExperLogo, and LCSI Logo

By Susan Raab

At the Massachusetts Institute of Technology in the late 1960's, a team of computer experts under the direction of Seymour Papert set out to design a tool that would make their large, mainframe computer accessible and fun for even the youngest student, while also encouraging an exploration of sophisticated concepts in computer science. The result was a brand new language for computers: Logo.

The first Logo let the youngster command a round, pen-carrying robot called a Turtle, which moved freely over a paper-covered floor, drawing whatever shape the student described in Logo commands. Grade-school children were soon using Logo's extensible, symbolic powers in sophisticated ways, and their success led major universities to use Logo to introduce their undergraduates to artificial intelligence programming.

This dual purpose of simplicity and sophistication challenges anyone who sets out to implement Logo within the comparatively limited resources of a personal computer. The three Logo packages now available for the Macintosh dramatically demonstrate the tradeoffs and choices developers are forced to make between these two objectives. Which Logo you choose for your Macintosh will depend on your own need or preference for simplicity or sophistication.

Turbo Turtle from Hayden Software is simplicity itself because it contains only Turtle Graphics. The Turtle is no longer a robot — it's a graphics cursor on the computer screen. Hayden targets Turbo Turtle for young children and their parents, so has chosen not to implement any of the sophisticated list-processing commands available in most versions of Logo. In fact, there are so few commands available that most have been incorporated into menus.

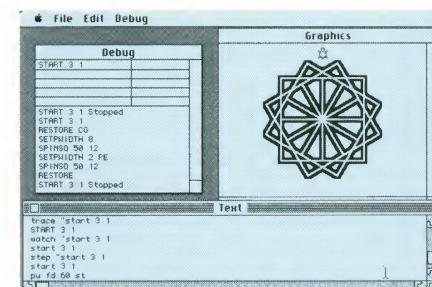
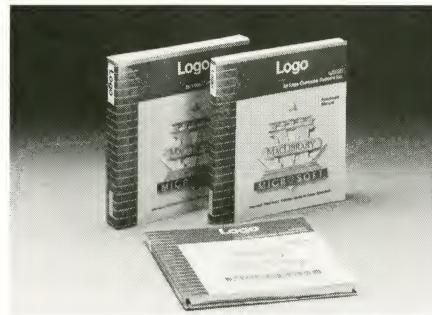
ExperLogo from ExperTelligence is at the opposite end of the spectrum. It encourages serious applications programming with its sophisticated data file handling, array data structures, three-dimensional graphics, and compiler.

Logo Computer Systems Inc. (LCSI) Logo from Microsoft lets you tailor Logo to either extreme. LCSI Logo supplies a core set of commands, as well as several optional sets of commands stored in separate files on disk. You can specify which sets of commands you want in memory with a Preferences program, which is similar to Apple's Font Mover. This means Turtle Graphics need not take up memory if your programming project requires only list processing. If you have a 512K

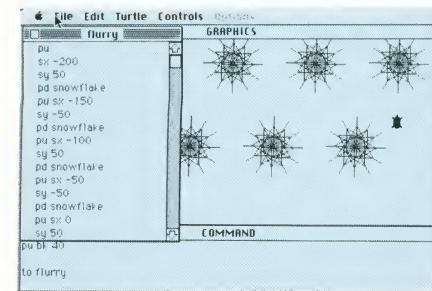
Mac, you don't have to make choices — all the functions fit in memory.

If you're familiar with LCSI's best-selling version of Logo for the Apple II, the first difference you'll notice in each of these Macintosh packages is the use of windows to define procedures. Apple II Logo used separate windows for interacting with the interpreter, editing procedures, and drawing graphics but let you define new procedures while either editing or interacting with the interpreter.

Turbo Turtle has one window for graphics and another called "Commands" for interacting with the interpreter. When you start to define a procedure by entering the title line (*to square*, for example), Turbo Turtle creates an editing window for that particular procedure. After you enter expressions for the body of the procedure and click the close box, Turbo Turtle adds the *end* line and defines the procedure in memory. Fortunately, you can't edit more than one procedure at a time, so Turbo Turtle's screen remains relatively uncluttered with never



LCSI provides a special debugging window where you can watch the execution of each line in a procedure.



Turbo Turtle opens an editing window for each procedure definition.

more than three windows.

ExperLogo has one "Listener" window for interacting with the interpreter, and as many windows as you request for graphics. However, you can define procedures only within an Edit Buffer window. You can open multiple edit buffers, define multiple procedures within an edit buffer, and save the contents of each buffer as a separate disk file. You need to remember which edit buffer contains which procedures because ExperLogo has no command to remind you.

With LCSI Logo, you must define procedures within its one editor window. LCSI Logo also supports multiple graphics windows, and allows multiple interpreter interaction windows as well. You can save the contents of a graphics window as a graphics file on disk, the contents of an interaction window as a text file, or the contents of the workspace, including all defined procedures and variable names, unless they are buried.

All three packages allow you to scroll back through your interactions with the interpreter and select a line or lines to be reevaluated. LCSI Logo makes a distinction between the Macintosh Return and Enter keys. It executes the line containing the cursor or selected text only when you press the Enter key or select DO IT from the menu. The others evaluate the current line or selection when you press the Return key.

I had frustrating experiences with ExperLogo. I found gaps in the manual, was frustrated by the lack of workspace management and debugging commands, and had trouble making a working copy from the copy-protected master disk. So, after exercising all three packages, I've chosen a favorite. Unless you want to get a child involved with programming, or have a special need for 3-D graphics and data file I/O, the decision is easy: LCSI Logo. LCSI has been implementing Logo on personal computers for many years, and their experience is obvious in this version for the Macintosh. Its flexible design, powerful debugging tools, sophisticated workspace management facilities, and polished, consistent documentation make this the choice for Logo on the Macintosh.

*Susan Raab was the project manager and senior writer for Dr. Logo from Digital Research. She recently joined Mindwork Enterprises as the project manager for PreWriter and managing editor of Icon Review.*

**#1116 LCSI Logo:** From Microsoft  
Retail \$124.95 Icon Review \$79

**#1045 TurboTurtle:** From Hayden Software  
Retail \$59.95 Icon Review \$45

## Fun With Programming and Logic! ChipWits

As a ChipWit designer, you assemble programming instructions for your ChipWit to follow—turn 45°, look for a door, sound a note, and so on. Once programmed, the ChipWit inches its way through mazes of rooms on its wheeled, hi-top gym shoes. Occasionally it must eat a piece of pie or drink a cup of coffee—its sole sources of energy. It must find its way back to the starting point before it runs out of energy and avoid one or more deadly Bad Things!

Creating a ChipWit that doesn't end up trapped in a corner somewhere is not so simple, and there are enough variations in the mazes to keep an avid ChipWit designer busy for quite a long time. For a fun and addicting introduction to (or escape from) programming and logic, try ChipWits!

**#1010 ChipWits:** From BrainPower, Inc.  
Retail \$49.95 Icon Review \$29

## Tailors Itself to Your Needs Typing Made Easy

Here's our favorite typing program. It presents finger performance data on an easy-to-understand chart, creates custom exercises that work your weakest fingers, and tracks the progress of a group such as your family or class. It can improve anyone's typing skills!

**#1047 Typing Made Easy**  
From QED Information Sciences, Inc.  
Retail \$59 Icon Review \$45

## Challenge Your Children With MacEdge II and Mind Over Mac

By Sharon K. Wright

A notable new series by Think Educational Software includes MacEdge II, a collection of reading and mathematics programs, and Mind Over Mac, a group of five thinking games.

The two strongest programs in MacEdge II are ABC Train and Count On Mac II for preschoolers. ABC Train asks a child to type the letter missing from a sequence, and rewards with a train car chugging across the screen. Count on Mac II displays icons and the child types how many there are. For older children, Memory Match II enhances memory skills, word relationships such as synonyms and homonyms, and vocabulary in a game similar to Concentration. Word Wonder II presents word search puzzles for different vowel sounds. Give 'n Take II presents vertical addition and subtraction (with or without borrowing or carrying), while Good Times II and Dividing Line II exercise multiplication and division skills respectively.

Mind Over Mac is a great set of games if you enjoy using your noodle! Master Code has students figure out a hidden code of symbols. In

## Challenge Your Memory Skills Think Fast!

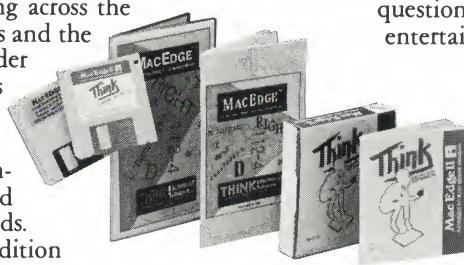
Start Think Fast without reading the manual for a good exercise in thinking fast! It immediately launches you into a series of timed exercises designed to test and improve right and left brain memory functions. The exercises focus on Compare, Copy, and Recall. In Compare, you see two sets of letters, numbers, or pictures and determine if they are the same or different. In Copy, you duplicate a set of pattern blocks. For Recall, Think Fast shows you a letter, number, or pattern block for a moment, then expects you to re-enter it within a certain time period. Think Fast is designed to test each brain hemisphere equally. Here's a fun and challenging way to improve your memory skills!

**#1034 Think Fast**  
From BrainPower, Inc.  
Retail \$39  
Icon Review \$29

## Test Your Reading Skills Speed Reader II

Speed Reader II highlights text phrase by phrase on the screen, leaving you no time to go back over what you missed. The package contains exercises that help you improve your eye span, your rate of perception, and your comprehension. You can even put in your own reading selections and quiz questions.

**#1043 Speed Reader II**  
From Davidson & Associates, Inc.  
Retail \$69.95 Icon Review \$49



## Math Blaster

Math Blaster is for any student who must master basic math facts, such as multiplication tables, essential for more advanced mathematics. The sections on fractions, decimals, and percents prepare you for algebra and higher math, while the more difficult files can help college-bound students increase their speed, essential to a high SAT score. You'll find that learning math facts has never been so much fun — and so effective!

**#1233 Math Blaster**  
From Davidson & Associates  
Retail \$49.95 Icon Review \$39

Destroyer, two players hide their ships, then try to locate and sink each others. Third Dimension is a 3-D version of Tic-Tac-Toe you can play against the Mac or another person. On-the-Contrary gives you twelve rounds to match pairs of prizes hidden behind doors and guarded by cops and robbers. In Trivial Intrigue, players circle a board by answering questions about sports, science, and entertainment.

Think Educational Software offers some excellent software for your children. I'm looking forward to their upcoming package, Mad Max & His Mind Box!

Sharon K. Wright is a traveling educational computer consultant. She holds a Computers in Education Certificate from the University of California at Berkeley.

**#1100 MacEdge II:** From Think Educational Software  
Retail \$49.95 Icon Review \$39

**#1068 Mind Over Mac:** From Think Educational  
Retail \$49.95 Icon Review \$39



## Professional Composer

By Ken Clark

I have been using this program for approximately two months, four to six hours per day, and am still amazed at its usefulness. It is so good that I have composed lengthy pieces at my Mac without ever going to the piano, or, miracle of miracles, applying pencil to paper!

With Professional Composer flexibility is the watchword. The program can handle up to forty staves per system. Time signatures, which are inserted from a pull down menu, can be changed within a piece. However, different time signatures cannot be placed on different staves simultaneously, a drawback for contemporary composers.

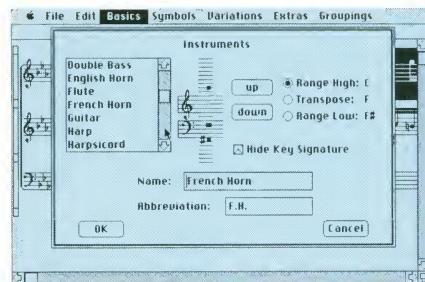
All time signatures are available, along with a choice of 42 different instruments on a pull down menu. The Instruments menu lets you check the range of each instrument and lists the most common transposition. Another menu provides 24 different tempo indications, or you can supply your own. Metronome markings are also available based on anything from a breve to a 64th note.

Measures can be numbered at every measure, every five or ten measures, or at the beginning of every system in the printed score. A facility for placing rehearsal marks is also available. A pull down menu allows you to go to a specific measure number or rehearsal mark without having to scroll — a real plus in my book.

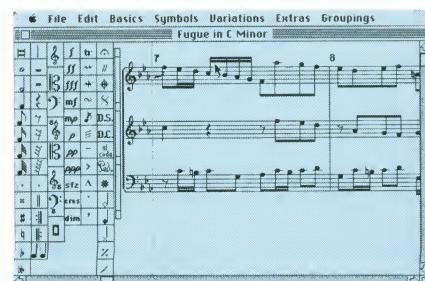
Notes are placed on the staff by either pointing and clicking on the sidebar or using the keyboard and the mouse. Grouping notes under a bar is mercifully easy—you drag over the notes to be grouped, click on a menu option, and Presto! Slurs and ties are inserted in the same way. As many or few of the six palette bars may be displayed at the same time. Transposition is also accomplished with a menu

option either by key or by interval.

Generally, only one voice can be entered on a staff, although a Merge Staves option is available. Professional Composer can handle the most complex rhythmic combinations, such as septolets, by using a menu option called "tuple," which creates beautifully proportioned spacing on the staff. Here the only drawback is a strange pause, almost a hiccup, when you play the score on your Mac. A nice feature is the ability to have the computer check each measure for accurate rhythm based on the time signature(s).



The Instrument menu in Professional Composer lets you select from 42 instruments.



In Professional Composer, up to six side bars may be displayed at one time.

There are two big problems which I have encountered so far with Professional Composer. First, the placement of lyrics under notes is very difficult.

What you see on the input screen is manifestly not what you get on the print screen. A related drawback is the inability to move backwards in the "Print Score" screen. If you are on page 19, and you want to look at page 16 you must exit the screen, return, and then page through from page one to page 16, a very slow process.

Notwithstanding the nitpicking, this is the program I use regularly, and Mark of the Unicorn is committed to music on the Mac. Registered owners will be notified as newer versions become available and will be able to upgrade at nominal cost. Probably the most exciting thing about this program is its future. Professional Composer is to be part of a music system including the not-yet released Professional Performer, which will interface the Mac with any MIDI synthesizer. With Professional Performer music will be noted on the staff as it is played! I can hardly wait!

Professional Composer comes with superbly clear documentation. Telephone support is available, although a little experimentation and careful attention to the manual should render it unnecessary. The disk uses the validation system for copy protection. I received a second disk after I registered my purchase with Mark of the Unicorn.

*Ken Clark has been a professional musician since he was 12 years old. He presently owns a small music publishing business.*

**Professional Composer**  
From Mark of the Unicorn

**#1083** Retail \$495 Icon Review \$289

*Note to music lovers: The MacNifty Stereo on page 42 is especially designed to bring out all the sound of your Macintosh.*

## The Sound of Music! Deluxe Music Construction Set

By Rob Swigert

Deluxe Music Construction Set gives you swift and efficient control over basic music entry and editing. You can select blocks and copy, move or delete; set time and key signatures, introduce accidentals, triplets, fivetuplets, beams, and chords, transpose to new key signatures, set dynamics, and play back your music (even hook it up to a MIDI-compatible synthesizer).

Among the program's many editing features is the ability to drag notes up, down, or horizontally on a staff, and insert dynamics, repeats, and first and second endings. All notes and rests can last up to thirty seconds. A special symbol font is included with Deluxe Music that even allows you to enter guitar chord symbols!

Deluxe Music Construction Set provides very detailed control over playback. Tempo, slurs, ties, and dynamics marks in the manuscript all function in playback. Set staccato, legato, pianissimo, forte, crescendo, and decrescendo. Stop the music by hitting the space bar, edit the staff on the spot and resume playback. This gem of a program is worth the price for anyone interested in hearing the music they write played the way they wrote it.

*Rob Swigert is a freelance documentation writer who has written for MacWorld.*

**#1211 Deluxe Music Construction Set**  
From Electronic Arts  
Retail \$49.95 **Icon Review \$39**

For Beginners...

## SongPainter

By Mike Lehman

SongPainter provides the ultimate in simplicity for the musical novice. You don't need to know a quarter note from a whole note to make music here! It is the ideal program for someone who knows only chords, like a beginning guitar player, but wants to copy a song from sheet music into the Macintosh.

Simpler than ConcertWare, SongPainter is a single program with a fixed set of instruments. It can handle up to 96 measures or 6144 notes. You input your notes by "painting" them into the boxes provided. You select the instrument, the note time, and then the note from a collection of visual patterns. You don't have to learn the traditional music staff.

SongPainter allows a maximum of four instruments at one time, but allows all of its 32 preprogrammed instruments to be incorporated in a single song. In fact, you must use multiple instruments because each instrument covers only one octave. For example, the

sample song described in the manual uses both saxophone and clarinet to cover the range of a one-voice tune.

A chord mode helps you enter the basic pattern of a musical piece quickly. You can add scales and other enhancements to the piece. SongPainter also lets you save and reload sequences, handy for repetitive passages, and SongPainter comes with sequences for each of the major scales already on disk. Most menu items have keyboard equivalents, but all notes must be entered using the mouse.

SongPainter also contains "Instant Help" that displays a help screen every time a command or option is selected. This can also be turned off after you get the hang of using SongPainter. However, the program is copy protected and cannot be put on your hard disk.

SongPainter is a new idea in music entry and composition, and is a useful program for the beginning musician.

*Mike Lehman relaxes from his founder's duties at Tardis Software by recording popular rock and roll as well as personal compositions in his home studio.*

**SongPainter : From Starcor**  
**#1098 Retail \$59 Icon Review \$39**

## Integrated Music Functions

### Concertware+

ConcertWare+, an upgrade from the original ConcertWare, is designed for those who already have a musical background. It consists of three integrated programs: the Player, the Writer, and the InstrumentMaker.

The pre-defined instruments provided with ConcertWare+ are the result of state-of-the-art sound analysis. The powerful and fascinating Instrument-Maker lets you edit the predefined instruments or create your own. If you're interested in the science of sound, the Instrument-Maker is a pleasurable way to experiment with sound generation. The manual gives detailed instructions on how to design waveforms (a picture of the sound) by using harmonics or by drawing the shape of the waveform freehand on the screen. You have full control of all of the elements of synthesized sound including harmonics and vibrato. You can even invent an icon to go with your new instrument!

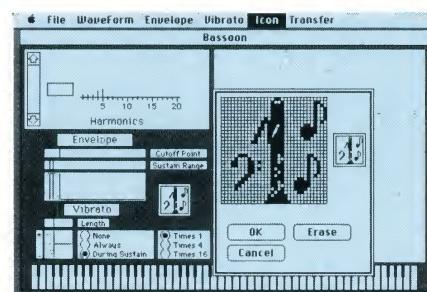
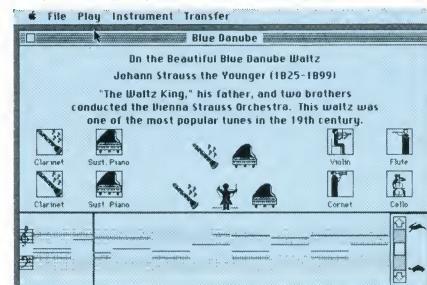
You use the Music Writer with either the mouse or the keyboard to input the music you want to play. The Music Writer even has a mode where it can take a note's timing from the duration of a keypress! Normally you enter one voice at a time, but the "chord entry" mode lets you enter a note for each voice in succession.

ConcertWare+ supports all the normal musical functions such as key signature and tempo selection. Unlike the original ConcertWare, you can spe-

cify triplets. You can assign an instrument to each voice and even change assignments in the middle of a song. Up to four instruments may be active at any one time (one per voice), but up to eight instruments may be used throughout the whole piece. Great Wave claims that ConcertWare+ can handle pieces with up to 50,000 notes. This should be sufficient for almost any four part musical composition you might enter.

After you've entered your song, you can either listen to it on the Player or print it in musical-score format. You can also "print" to a MacPaint file so that you can add note bars and lyrics in MacPaint.

You'll use the ConcertWare+ Player to play back the songs you enter,



or any of the 23 musical selections included on the disk, ranging from Bartok to Strauss. ConcertWare+ even lets you read files from Hayden's MusicWorks, a great bonus because of the large body of pre-entered songs available on systems like CompuServe.

ConcertWare+ comes with a readable manual that guides you through the features of the program without fuss. The program is not copy-protected, so you can run it from a back-up copy or from a hard disk. For the music student, we recommend composing on ConcertWare+.

**#1097 ConcertWare+ : From Great Wave**  
**Retail \$69.95 Icon Review \$45**



### New Features for Hard Disks!

#### Copy II Mac

Copy II Mac is popular with Icon Review customers because it lets you make backup copies of your software, even copy-protected software!

This new version of Copy II Mac can copy many major applications to your hard disk — including Jazz Release 1, Think Tank 512, Macintosh Pascal, a number of Microsoft products, and other popular software. All this power is packaged behind a simple yet elegant user interface.

Mac Tools, a utility included with Copy II Mac, will probably save you the cost of the whole package the next time you mistakenly trash an important file. Among its many disk and file utilities are Copy, Rename, and Delete. More sophisticated tools let you look at the contents of any file or block on disk. Best of all, recovery tools let you restore deleted and damaged files.

**#1012 Copy II Mac:** From Central Point Software  
Retail \$40 Icon Review \$21

FROM PC	TO MAC
Lotus	Multiplan, Excel, Jazz
Multiplan	Multiplan, Excel, Jazz, DIF
WordStar	MacWrite
MultiMate	MacWrite
DIF	DIF, Multiplan, Excel
Text	Text (for transferring ASCII characters)
Binary	Binary (for transferring files without translation)

FROM MAC	TO PC
Multiplan, Excel, Jazz	Lotus, Multiplan, DIF
MacWrite	WordStar, MultiMate, Text
Text	Text (for transferring ASCII characters)
Binary	Binary (for transferring files without translation)

**More than simply transferring, MacLink actually translates file formats for use with different applications.**

### Exchange Files with IBM PCs MacLink

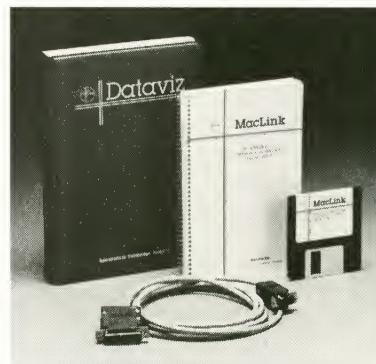
MacLink is rapidly gaining popularity because it solves PC-to-Mac-and-back file transfer problems. Its quality shows in both the program's performance and in the easy-to-follow on-screen instructions for both the PC and the Macintosh.

After you set up the cables as described in the manual, you boot DOS and MacLink on the PC. Then, you get MacLink running on the Mac, and from the Mac tell MacLink about all file transfers. Once the two MacLinks are communicating and their passwords match, you are ready to select and transfer files. You select files

from a dialog box in the typical Macintosh fashion. When you click OK, the transfer is made and the formats are translated. The table shows the possible translations.

If you need to transfer files to or from IBM PCs and compatibles, MacLink offers the solution to file conversion headaches.

**#1024 MacLink (With 8' Cable)**  
From DataViz, Inc.  
Retail \$155 Icon Review \$129



### Hacker's Backup Utility and More!

#### MacZap

By Joe Marinello

Need to back up copy-protected software, recover a trashed file, or retrieve data from a crashed disk? MacZap can work the magic necessary to solve these problems. At first glance, the program may seem a little complicated and its documentation terse, but making a copy of a protected disk is as easy as opening MacZap Copy and pressing the Start Copy button. With a little experimentation, you'll discover how

to move hidden files from a master disk to your hard disk so you can open an application without inserting the master for verification. As a Macintosh developer, I have even done my own copy protection using MacZap. Overall, I rate this program tops; in fact, I'd really be lost without it!

*Joe Marinello is the author of Bulk Mailer.*  
**#1105 MacZap:** From Micro Analyst  
Retail \$60 Icon Review \$39



### Cache Memory System Speeds Performance, Protects Data

## TurboCharger

By David L. Foster

If you feel unproductive while your Fat Mac displays the wristwatch, TurboCharger can make you feel prolific! It makes your Macintosh use its memory and floppy disks more efficiently by using cache memory to dynamically create a RAM disk as you use an application.

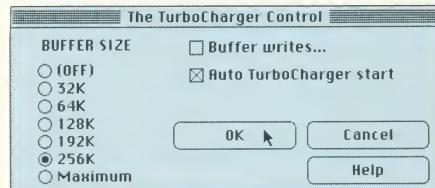
Unlike a simple RAM disk, TurboCharger monitors your disk usage and stores an image of the disk sectors you use most frequently in RAM.

When the Mac needs to access the same information over and over again, it can retrieve it from RAM instead of from disk. For example, it normally takes 27 seconds to open a new MacWrite file. With TurboCharger, the first opening requires 22 seconds and subsequent openings take only 12 seconds! Once you've tried TurboCharger, you'll want to turbocharge every application you own!

TurboCharger is safer than a traditional RAM disk because it saves data to disk instead of to RAM, eliminating the risk of losing your work if power fails. You can optionally configure TurboCharger to save to RAM just as a RAM disk would; this gives you more speed at the risk of losing your work.

When you start TurboCharger, it asks for an application disk. It installs itself on the disk and adds TurboControl, a utility that lets you select the size of the RAM buffer and either buffer or RAM data storage. You'll need to use a small buffer for memory-hungry programs like Jazz, Excel, or ThinkTalk 512. You can even use turbocharged applications with the Switcher, provided you select a buffer small enough to leave sufficient room in RAM for other applications.

TurboCharger is remarkably free of bugs and works with almost every Macintosh program available. TurboCharger and TurboControl require only 14K of disk space, so you can install them on almost any program disk.



Unlike traditional RAM disks, TurboCharger lets you select whether or not you want to save data to RAM. If you select writing to disk, your data will be more secure. Writing to RAM increases speed.

TurboCharger lets you use all the memory in your 512K Macintosh even when your application doesn't. It speeds up your Macintosh more economically than adding a hard disk, and more safely than a traditional RAM disk. I highly recommend TurboCharger as an indispensable time saver for any 512K Macintosh user.

### #1071 TurboCharger

From Nevin Microsystems  
Requirements: 512K Macintosh  
Retail \$95 Icon Review \$59



### Add a Disk Drive to Your System Mac Memory Disk

Mac Memory Disk allocates a portion of your Fat Mac's RAM memory to simulate a floppy disk. This has two benefits. First, you've effectively added another drive to your system for the low price of a utility program. Second, your Mac can access the RAM disk in a fraction of the time it can access a floppy, so software performance is greatly improved.

Mac Memory Disk lets you install the memory disk either on demand or at startup. We've found it especially useful to install the memory disk at start-up, loading it with the Finder and a primary application such as MacWrite, MacPaint, or FactFinder. You'll find the performance improvement addictive!

### #1025 Mac Memory Disk

From Assimilation

Requirements: 512K Macintosh  
Retail \$29 Icon Review \$21

### Concerned About Security? Hippo-Lock

Are you concerned about the privacy of your computer files? Hippo-Lock scrambles the contents of your files so they are protected from unauthorized prying. Any data — figures, text, MacPaint graphics — can be protected.

Hippo-Lock uses the National Bureau of Standards Data Encryption Standard (DES) designed for use by the Department of Defense. You create a password (up to 30 characters) for each file you want to protect. Only your password will restore the encoded data, so don't forget it! Incorrect passwords only encrypt the data further.

The first menu lets you Set Password, Verify Password, Encode or Decode. The Security menu lets you select from three levels of security. Only the highest level conforms to the Data Encryption Standard, but the lesser categories feature faster encryption and decoding.



If you must keep your data confidential, Hippo-Lock can provide easy and economical security.

#1197 Hippo-Lock  
From Hippopotamus Software  
Retail \$119.95  
Icon Review \$79

### Make Your Own Macros Mac Tracks

Mac Tracks lets you create and store macro commands. Mac Tracks can record your keystrokes, mouse clicks, movements, and associated pointer positions in a macro and then replay them when the need arises. Once the macro is recorded, you can execute the entire sequence by pressing one key. You can associate a macro with an application and even record freehand drawings you make with MacPaint or other programs. Mac Tracks is the best way to record formats, boilerplate, or perform repetitive housecleaning!

### #1027 MacTracks

From Assimilation  
Retail \$29 Icon Review \$21





## Expand Your Font Library Fluent Fonts

Fluent Fonts is a two disk set filled with beautifully designed, original fonts for many purposes. There are fonts of symbols for Astronomy, Biology, Chemistry, Electronic Circuit Design, Meteorology, and Advanced Mathematics. Letter fonts include Greek, Czech, Slovak, Polish, Ukrainian, Russian, and Hebrew (although you'll have to provide your own right-to-left word processor). Decorative fonts provide interesting graphics for borders, announcements, and newsletters.

Each font in Fluent Fonts is compatible with the Apple Laserwriter's smoothing routines. The documentation tells exactly how to install the fonts and get the best-looking printouts.

This package provides the broadest selection, the greatest attention to detail, and the best value of all the font packages we've seen. You'll appreciate the effort that went into this collection!

**#1018 Fluent Fonts**  
From Casady Corporation  
Icon Review \$29



## Create Your Own Fonts!

### FONTastic

By Robin Casady

At last, an improved font editor! Having worked with Apple's Font Editor for nine months, I can appreciate the improvements found in FONTastic. For example, FONTastic's character window has an environment that is similar to Fat Bits in MacPaint. When the option key is depressed, the current tool becomes the hand (grabber). Images can be moved back and forth between MacPaint and FONTastic. More impressive is FONTastic's ability to "kern" characters. This means you can cause part of a character (say, the tail of the "y") to extend into the space of another character to tighten type and save space.

FONTastic can attach fonts to a program such as MacPaint or MacWrite instead of in the System file. By attaching a font to a specific program, the font becomes accessible only to that program. This is especially valuable to users of hard disks: fonts that are only used in MacPaint do not need to clutter a system file that is used with many different programs. Even if you are not interested in creating whole new fonts, FONTastic makes it easy to modify an existing font to your own specifications. You can revise characters you don't like, or add your own special icons, foreign characters, a company logo, or even your signature!

FONTastic is an excellent program. My only complaint is that it was not available when Richard Ware and I were developing Fluent Fonts!

*Robin Casady is President of Casady Company, publisher of Fluent Fonts.*

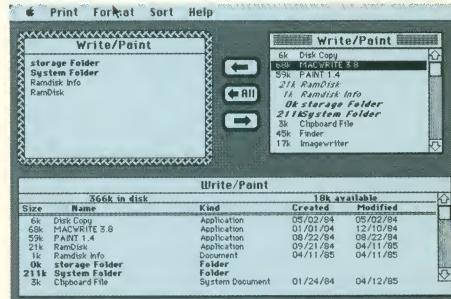
**#1102 FONTastic:** From Altsys Corporation  
Retail \$49.95 Icon Review \$39

## Print Your Own Disk Labels with...

### MacLabeler

MacLabeler lets you use your Mac to list the contents of your disks—by files, folders, or both. You can print diskette labels on gummed or plain paper. The end product of MacLabeler is a diskette library with neatly printed labels showing the contents of each disk at a glance. A supply of labeling material is included. Documents and folders can be sorted alphabetically, by type, size, or date. A directory window provides a list of files and folders by name, type, size, and date. This is one utility every Mac owner should have!

**#1023 MacLabeler:** From Ideaform, Inc.  
Retail \$49.95 Icon Review \$29



## What Disk Was That File On, Anyway?

### Mac Disk Catalog

This handy utility can straighten out your disk library in a hurry! When you run the program, it asks you to insert each of your disks in turn. It categorizes your files, and prints a catalog that shows which files are on each disk. You can create as many catalogs and categories as you need. Prints disk labels and 3x5 index cards too!

**#1106 Mac Disk Catalog:** From New Canaan MicroCode  
Retail \$39.95 Icon Review \$31

**ASK ABOUT OUR  
NATIONAL ACCOUNTS PROGRAM  
408/625-1957**



## Macintosh Programmer's Library FastFinder, ToolPak 1, ToolPak 2, C-Leaner, and MacMake

The Macintosh Programmer's Library, from Tardis Software, is a collection of useful tools that operate on source programs containing assembly language and C. Each comes with on-disk documentation.

### FastFinder

FastFinder provides more functions than the Apple finder, and is much faster because it uses a command-line-oriented interface instead of icons. FastFinder also features "script" files to perform repetitive actions such as backups, the ability to list, search, display, and dump source files to the screen without ever leaving the program.

### ToolPak 1 and ToolPak 2

For assembly language programming, ToolPak 1 helps you build libraries and search, dump, and compare source programs. MacSearch allows both simple and wildcard searches and MacDiff allows a full "differential" analysis of two versions of the same source file. MacXref-A gives you a much needed cross-reference listing, which the MDS assembler does not have. ToolPak 2 adds a C cross-reference (MacXref-C) and a collection of C utility library modules in source form, such as LaunchIt.C, which launches one application from another.

### C-Leaner

C-Leaner makes two passes over your source code, advises improvements, and points out potential errors. The first pass displays all the variables for each function, and recommends which should be specified as register or auto variables. The second pass compares each function call with the parameter list of the function it is calling, then tells you where you are passing problematic parameters.

### MacMake

MacMake takes as input a file that describes the dependencies of the source and object files that make up a finished program. It then determines which files need to be rebuilt to make the program "whole" again. MacMake then generates a batch file for MDS Exec, MegaMax Batch, or FastFinder to compile only those modules which are "out of date."

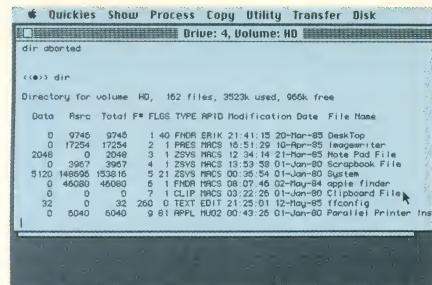
Individually or collectively, the utilities in the Macintosh Programmer's library can save you precious development time.

## A Potent Symbolic Debugger for the Macintosh TMON

By Cary Wyman

TMON is a multi-window symbolic debugger for the Macintosh that lets you watch your code, registers, stack, and several data structures while you step or jump through your program. Both TMON and MacDB (from the Macintosh Developer's System) offer symbolic debugging capabilities based on the MDS symbol table format. Both recognize and display symbols in the code area, but TMON also lets you use code or data symbols when you specify an address. Unlike MacDB, TMON requires only one Mac.

MacDB's windows are prettier than TMON's, but TMON displays more useful data. With TMON you can specify more general expressions, anchor windows more flexibly, and select the base addresses of windows more easily. You can also change values by simply typing over old ones, produce formatted displays of the heaps and of resource files, record selected traps, and print the contents of windows or memory in various formats. Finally, TMON is extensible; many of its features are implemented through what is called the User Area, for which source is provided in MDS format.



### FastFinder



### Programmer's Library

## Macintosh Programmer's Library From Tardis Software

### #1117 FastFinder

Retail \$49 Icon Review \$39

### #1120 ToolPak 1

Retail \$49 Icon Review \$39

### #1121 ToolPak 2

Requirements: 512K

Retail \$49 Icon Review \$39

### #1119 C-Leaner

Requirements: 512K

Retail \$49 Icon Review \$39

### #1118 MacMake

Retail \$49 Icon Review \$39

### #1122 MacProgrammer's Library (5 disks)

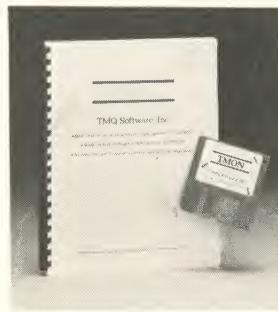
Retail \$200 Icon Review \$149

## ASK ABOUT OUR NATIONAL ACCOUNTS PROGRAM 408/625-1957

TMON's documentation is much more comprehensive than MacDB's (63 pages vs. 14), and telephone support is friendly, competent, and candid, which I appreciate. Note that TMON does not support the Mac XL. In the weeks that I have been using TMON, I have been able to find several problems much more rapidly than would otherwise have been possible. Waldemar Horwat, the author, put a lot of careful thought into this product.

Cary Wyman is President of Mind-Work Enterprises, Inc. He has written software and managed software teams for more than twenty years. He is currently working on PreWriter.

**#1238 TMON:** From TMQ Software, Inc.  
Retail \$100 Icon Review \$89



*Run Silent, Run Deep!*

## GATO: Submarine Simulation

It's 1943 and you're at the helm of your submarine. You've read your manual about vessel operation, tactical submarine warfare, navigation, and instrumentation. You select your mission and your orders from COMSUBPAC are tapped out in Morse code. You select your torpedo-to-mine ratio, check your speed, depth, heading, battery, diesel, oxygen, dive plane, and rudder settings. You're cruising at 20 feet below when radar detects an enemy ship, then six more. You get a Destroyer in your sights and fire. You watch patiently as the torpedo speeds toward the enemy. Suddenly, the Destroyer erupts in an explosion right before your eyes! Others immediately bear down on you. You've been detected on sonar! Dive! Dive! Dive!

The power and appeal of GATO is in its richness, attention to detail, and wealth of possibilities. The developers hired a retired submarine commander as a consultant and modeled the simulation after genuine submarine features. The true test of any simulation is who uses it, and GATO's roster includes the King of Sweden and the naval officers at the Naval Postgraduate School in Monterey, California. You'll be in good company with this fantastic simulation game!

**#1175 GATO:** From Spectrum Holobyte

Retail \$39.95 Icon Review \$29



*Championship Soaring with . . .*

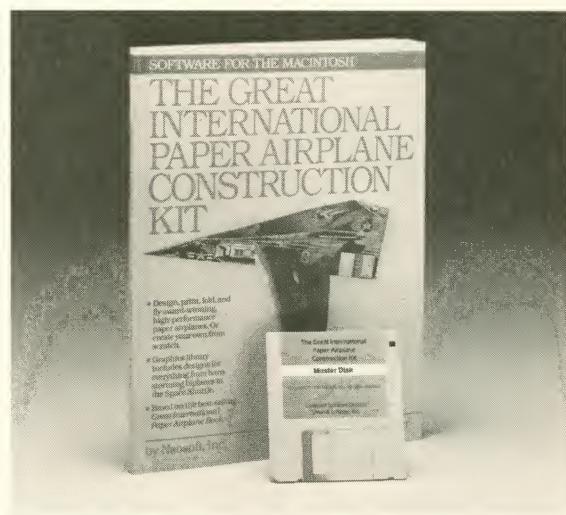
## The Great International Paper Airplane Construction Kit

This kit lets you re-create the winning entries of the 1st International Paper Airplane Competition, sponsored by Scientific American. The disk contains all the plane patterns in MacPaint files, as well as additional artwork such as pilots, paratroopers, and military insignia you can add to customize each plane. Just print them out, fold them up, and you're flying with the best!

**#1126 The Great International Paper**

Airplane Construction Kit: From Simon & Schuster

Retail \$39.95 Icon Review \$29

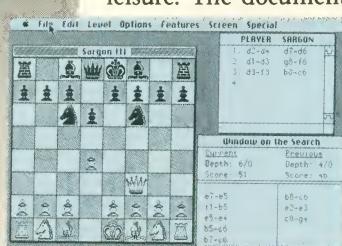


*The Champ of Microcomputer Chess . . .*

## Sargon III

Sargon III is easier to use, yet more challenging, than any predecessor or competitor. An independent window records moves without disabling the board, and the mouse makes moving the pieces a natural action. The program is sophisticated enough to challenge even the most advanced players. The nine levels of play determine the amount of time Sargon has to plot moves. Option menus provide a range of choices from selecting play level to playing a game currently in memory. Also, Sargon includes 107 of the greatest matches of all time, which you can study at your leisure. The documentation is well done and includes

a beginner's section on how to play chess. If you're a chess enthusiast, this one's a must!



**#1040 Sargon III**

From Hayden Software

Retail \$49.95

Icon Review \$30

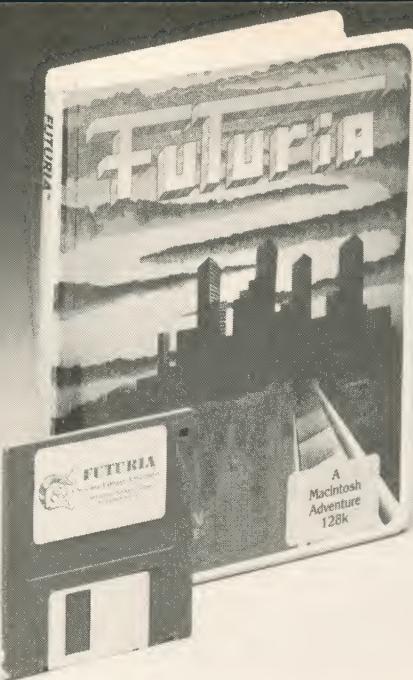


Escape with . . .

## Futuria

During your space travels, you have been mysteriously caught in a time warp. You awake to find yourself in the deserted steel city of FUTURIA, where a security force of intelligent robots has hidden your ship! To survive, you must deactivate the robots, find your ship, refuel it, and escape. You'll pilot a monorail train, discover the secret of radioactive materials, and shoot many robots before you're through! You can explore over 60 locations and find over 100 objects during your quest. Save your game and check the provided hint list when the going gets tough!

**#1224 Futuria:** From Unicorn Software  
Retail \$45 Icon Review \$35

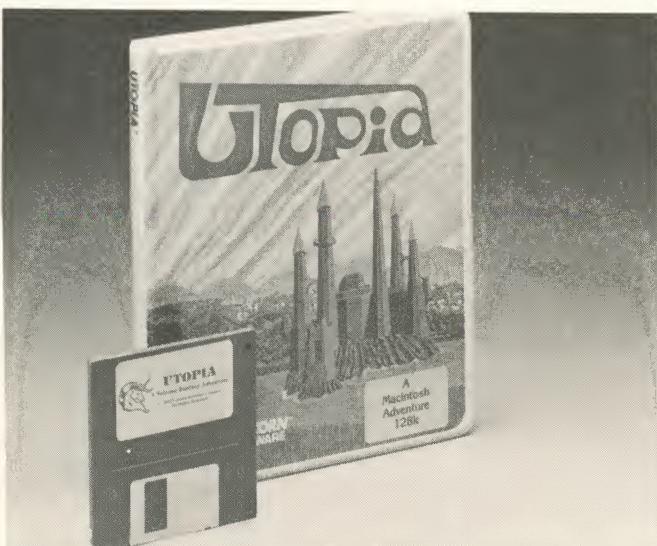


*The Answer is 42 . . .*

## The Hitchhiker's Guide to the Galaxy

The Hitchhiker's Guide to the Galaxy, a "trilogy of four books" by British author Douglas Adams, was so popular that three appeared on the *New York Times* bestseller list at the same time! In 1984, Adams teamed up with Infocom programmer Steve Meretzky to translate his books into outrageous interactive fiction. The result is a hilarious adventure that will keep you laughing until the earth is destroyed (about 12 minutes from now). For one thing, you can't always believe what your computer guide tells you! The first part of the game follows the storyline of the book, but after that it quickly develops a theme of its own. Before you can win, you must, among other things, get a fish to fly into your ear, enjoy some Vogon poetry (a fate many consider worse than death), and prove to a door that you're intelligent (no kidding)! For the silliest tour of the universe, you can't go wrong with The Hitchhiker's Guide to the Galaxy. P.S. Don't forget to bring your towel!

**#1073 Hitchhiker's Guide to the Galaxy**  
From Infocom Retail \$40 Icon Review \$25



*Be An Ogre's Lunch in . . .*

## Utopia

Seeking a safe haven for the people of your dying planet, you are awakened from space-journey hibernation by your ship's alarm. You must survive a crash-landing on a strange planet, where UTOPIA appears just across a magical lake in the distance. While you attempt to discover the secret of crossing the lake, you'll encounter many strange obstacles and mystical creatures. You'll explore petrified forests, underground rivers, swamps, and caves, and gather over 80 objects before you complete your quest. Detailed graphics and speedy response to your two-word commands add to the excitement of the game.

**#1225 Utopia:** From Unicorn Software  
Retail \$45 Icon Review \$35



## Digitize Pictures With Your Imagewriter ThunderScan

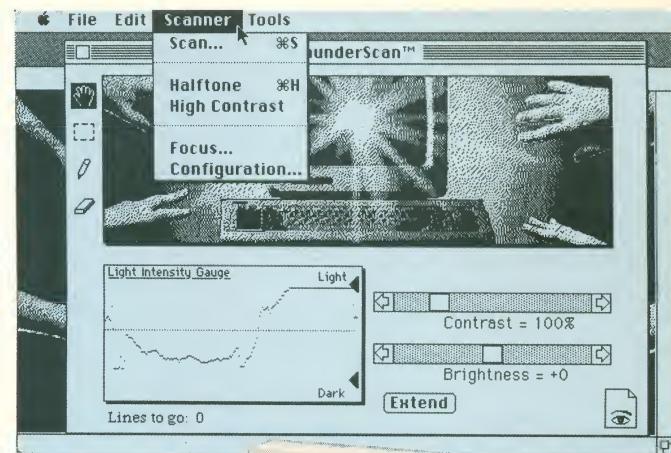
By Danny Goodman

Of all the hardware add-ons for the Mac, there's none more clever than the ThunderScan. It turns the Mac-to-Imagewriter flow around and makes the printer an input device capable of capturing photographs and other flat art in MacPaint files.

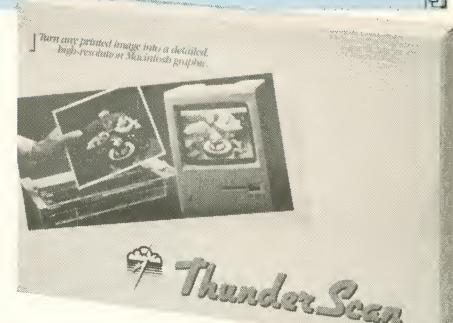
The hardware magic of ThunderScan is an optical scanning device that takes the place of the ribbon cartridge. A cable from the scanner extends through a slot across the front of the printer left by the new printer cover that comes with the ThunderScan package.

Unlike most other digitizer software, which fashion gray shades from standard MacPaint-like patterns, ThunderScan's software recreates shading with carefully placed pixels as needed. Because the pictures are stored as gray levels, scanned images can be altered under software control — contrast, brightness, and light intensity. MacPaint-like tools are provided for selecting, erasing, grabbing, and changing pixels in a Fatbits mode. When you're through adjusting the picture, you can save it either as a ThunderScan document, which you can readjust at a later date, or as a MacPaint document for further refinement or pasting into another document.

A 512K Mac is desirable for ThunderScan if the image sources you intend to digitize are full size. With a 128K Mac, you'll be limited to a picture area about 8 by 8 inches in normal resolution. You'll also be limited in selecting your image sources because the material must be a single sheet small



The main ThunderScan screen provides a small scrollable (via the grabber hand) window and picture quality controls. A larger image is available in the window beneath.



At the tip of the scanner cartridge are a light source and detector. As the cartridge scans across the image in the carriage, the detector records the amount of light reflected off the surface.



enough to fit into an Imagewriter carriage. Don't be in a hurry to digitize a picture! In standard (100%) magnification, it takes about 15 minutes to scan an 8 by 10 inch image area bidirectionally — more if you need higher quality pictures.

Even when compared to video-based digitizers, ThunderScan appears to do the most accurate job of reproducing nuances of the original. Anyone doing serious graphics work with the Macintosh needs ThunderScan in the drawer ready to go at a moment's notice!

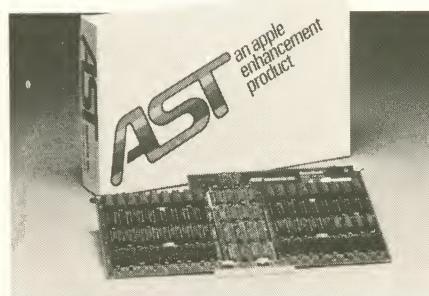
Danny Goodman is Contributing Editor to Macworld and author of SuperMac (Macworld Books/Simon & Schuster, 1985).

**#1054 ThunderScan:** From Thunderware  
Retail Price \$229 Icon Review \$175

## More Memory for your Mac XL RamStak

AST Research is well known for setting standards with enhancement products for the IBM PC and Apple computers. RamStak is a plug-in expandable memory board for your Macintosh XL. Now you can fully utilize the latest higher-level integration applications program, such as MacWorks XL or Lisa 7/7.

RamStak configurations are 512K, 1 Megabyte, and 1½ Megabytes. The boards are socketed for easy upgrading. Full compatibility is guaranteed with all versions of the Macintosh XL; a one year warranty is standard. If you need extra memory for your XL, RamStak by AST is the way to go!



**RamStak:** From AST Research, Inc.  
Requirements: Macintosh XL  
**#1127 512K RamStak**  
Retail \$895 Icon Review \$699  
**#1171 1-Megabyte RamStak**  
Retail \$1495 Icon Review \$899  
**#1172 1.5-Megabyte RamStak**  
Retail \$2095 Icon Review \$1099

THE  
RIGHT  
SOFTWARE  
AT THE  
RIGHT  
PRICE!

Icon  
Review

# Power Accessories for your Macintosh

Electrical power, your Mac's lifeblood, can be unpredictable! You may also need more outlets for your peripherals. Here's our list of power-problem solutions.

## The Wire Tree Plus

Wire Tree Plus acts in one nanosecond to protect your equipment from power surges and spikes, and has many other convenient features. Five of its six outlets are switchable; the sixth remains constantly on-line to power your desk clock or other uninterruptable peripherals. Wire Tree Plus includes a telephone-jack style outlet for your modem that filters communications to remove transverse and common mode noise. It can be mounted underneath a table or desk with a special frame that holds wires and cables neatly out of your way, and comes with a five-year warranty.

**#1268 The Wire Tree Plus**  
From Daylight Corporation  
Retail \$79.95 Icon Review \$69



## MacGard

MacGard protects your Mac from surges, spikes, static electricity, faulty grounding, and radio frequency interference. It adds two power outlets to your workstation, and comes with a lifetime guarantee.

**#1178 MacGard**  
From Systems Control  
Retail \$89.95 Icon Review \$75

## Surge Suppressor

Portable protection for a traveling Macintosh. It replaces your power cord, providing surge suppression and line-noise filtering. It's light in weight and fits easily into your carrying case.

**#1201 Surge Suppressor**  
From Kensington Microware  
Retail \$49.95 Icon Review \$34



## Control Center

Organizes all your power needs. Styled to fit underneath your second disk drive, it provides fingertip control over your whole system. There's a master switch to power the whole system on and off, and individual switches for a printer, modem, and one auxiliary device. Control Center protects your entire system from damaging power surges, line noise, and static shocks.

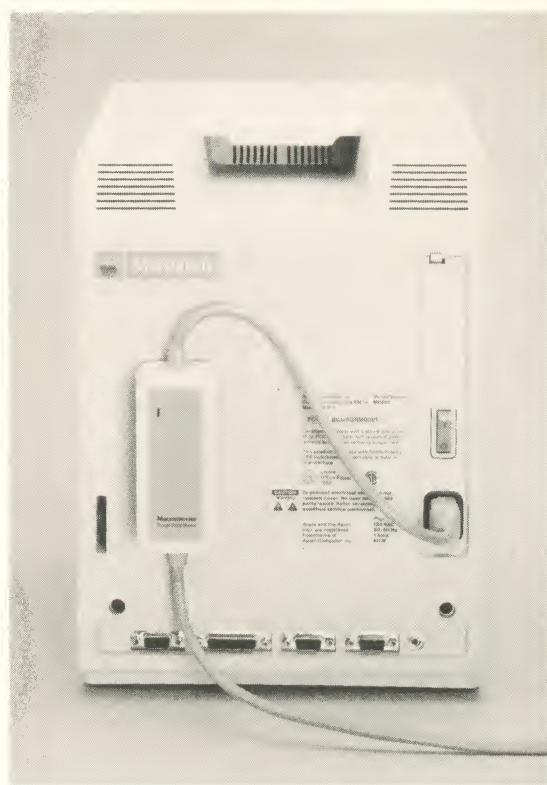
**#1140 Control Center**  
From Kensington Microware  
Retail \$99.95 Icon Review \$65



## Datasaver

This power backup provides 200 watts to keep your Mac operating during power interruptions or brown outs.

**#1217 Datasaver**  
From Cuesta Systems  
Retail \$499 Icon Review \$399





### Hard Disk Storage Gives Better Performance!

## Omnidrive, Mac Bottom, and Mac 10

Are you frustrated by the diskette shuffle? Or insufficient disk space? Perhaps it's time to consider a hard disk for your Macintosh. This issue features three of the leading hard disks available in today's market.

### Save Time and Work More Efficiently

Regardless of the hard disk you choose, it will save you time and energy. You can store applications you're currently using and related data on the same hard disk. You'll be amazed at how much faster you can start an application and access data from a hard disk. Because a hard disk spins at a much higher speed than a floppy diskette, your Mac can access data from a hard disk at least three times faster than from a floppy diskette.

### Choosing A Hard Disk

How will you know which hard disk to choose? First, list how you use your Mac. Include the applications you use most often and the types of files you create and store. Are you the only person using your Mac or do others often use it? Will your Mac be a single user system or will you connect it to a network? List and prioritize which features you like or need. This information helps determine which hard disk best fits your needs.

If you use an accounting application, security and reliability are features

at the top of your list. Look at the family of Omnidrives from Corvus. You can select from a wide range of sizes. Corvus offers a middle-sized 20 megabyte Omnidrive, and a high-end 126 megabyte Omnidrive. Featured in this issue is the popular 11 megabyte Corvus Omnidrive.

Corvus Omnidrives give you one level of password security. With more than one person sharing a hard disk for confidential accounting data or correspondence, password security might be just the feature you need.

If your work demands that you

compare several types of data and report your findings, perhaps mounting multiple volumes on your desktop is important. Look at Mac 10 from Paradise. You can mount up to eight volumes on your desktop. This is two more volumes than the Mac Bottom or Omnidrive.

Mac 10 is also easy to use. Implemented as a desktop accessory, its system software lets you mount and dismount volumes with the click of a key — even when you're using an application.

If speed is important and your Mac

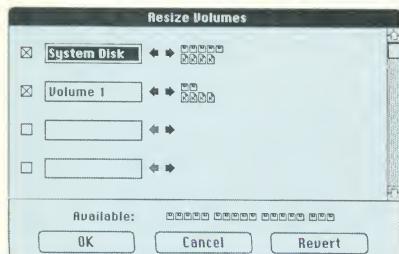
### Quick Comparison Chart

Hard disk	Omnidrive	Mac Bottom	Mac 10
Company	Corvus	PCPC	Paradise
Size (megabytes)	11,21,45,126	10	10
Supports AppleTalk	Yes	Yes	Yes
Data Transfer Rate (Single User-Bits/Sec)	920	920	600
Server Type	Disk Server	Single User	Single User
Security	Password-1 level	NA	NA
Encryption	No	NA	NA
Partitioning (kilobytes)	400-16,000	NA	400-10,000
Max. Partitions	No Max	No Max	26
Volumizing Software	Yes;application	Yes;application	Yes;application
Mounting Software	Yes;application	Yes;application	Yes;accessory
Max. Vols. on Desktop	6	6	8
BackUp Utility	Desktop Utility	Utility	NA
Print Spooling	No	Yes	Yes
Port Connection to Mac	Modem	Printer or Modem	Printer or Modem
Basic List Price	\$1495-\$895	\$1595	\$1495

NA = Not Available



is a single-user system, consider Mac Bottom from Personal Computer Peripherals Corporation. Mac Bottom transfers data from the serial port to the drive at 920 kilobits per second — the same data transfer speed as the Corvus Omnidrives — but at a better price. MacBottom's solid engineering shows in the friendliness of its graphic volume management software as well as in its reliability and performance. PCPC provides a utility that lets you "lock" the Finder so that even an application loaded from a floppy will use the system file on the Mac Bottom hard disk.



**MacBottom Volume Manager**

#### Review the Facts

Before you purchase a hard disk, be sure you review the facts. Disk specifications can be misleading. They often indicate the best possible situations. The performance of software that lets you access, read, and write data, as well as perform other tasks, can optimize or degrade the specifications.

For example, review the data transfer rate and performance of the Paradise Mac 10 compared to the Corvus Omnidrive. The Mac 10 has a data transfer rate of 600 kilobits per second. The Corvus Omnidrive's data transfer rate is 920 kilobits per second. However, when both drives underwent tests outlined in the June 85 Seybold report, "Single-User Winchesters for the Macintosh," the Mac 10 proved to be slightly faster in performing most tasks.



**Corvus Volume Manager**

#### Before You Buy

Be sure the disk meets your ergonomic needs. Both the Mac Bottom and the Mac 10 are lightweight and portable. The Mac 10 takes up very little desk space, while the Mac Bottom, because it fits under your Mac, takes none at all. However, we found the Mac Bottom too noisy for such close proximity, and were much more comfortable

with it under the desk (see the Extension Cable on page 42).

Take a quick look at the comparison chart. It helps you identify critical criteria you should analyze before you buy a hard disk for your Mac. Notice that only the Corvus Omnidrives currently have a disk server, which allows file access operations over a network. However, if networking is important to you and you can wait, sources say third party software for networking the other drives will be on the market within the next 90 days.

No matter which one you choose, a hard disk will improve your Mac's performance, and consequently your own productivity.

#### #1028 Mac Bottom

From Personal Computer Peripherals Corporation  
Retail \$1595 **Icon Review \$1195**

#### #1137 Mac 10

From Paradise Systems, Inc.  
Retail \$1195 **Icon Review \$799**

#### Single User Omnidrives

From Corvus Systems, Inc.

**#1150 11-Megabyte**  
Retail \$1995 **Icon Review \$1496**

#### #1151 20-Megabyte

Retail \$2795 **Icon Review \$2246**

#### #1152 45-Megabyte

Retail \$5195 **Icon Review \$3896**

#### #1153 126-Megabyte

Retail \$8995 **Icon Review \$6896**

*See page 24 for prices  
of multi-user Omnidrives*



#### Every Mac Owner Needs . . . Blank Diskettes

Here's our best buy in storage media — Sony single-sided microfloppy diskettes. Each box contains 10 diskettes with both color-coded and white labels.

**#1144 Diskettes:** From Sony  
Retail \$49.95 **Icon Review \$27**

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Once You Get It Into the Machine...

## MacVision with MoreVision

By Rob Swigart

If you have a video camera and a Macintosh, you can use MacVision from Koala Technologies to digitize three-dimensional images. You can make pictures the size of the MacPaint window, or the full size of your screen. Once you've captured an image, you can add some interesting effects using the MoreVision application that comes with MacVision. Special MoreVision options let you Zebra, Trace Edges, Contour, Halftone, and Dither your images.

**#1207 MacVision with More Vision:** From Koala Technologies  
Retail \$399 Icon Review \$179



Taking pictures with a video camera can be a lot of fun. MacVision allows you to capture a regular image and then alter it with MoreVision.



Thick and Thin gives you an etching effect.



You can even make pictures that feel like you do.



## Hear It All! MacNifty Stereo

If you enjoy making music with your Macintosh, you'll want to share the sound with the world! MacNifty Stereo takes the mono sound from your Mac's audio output and produces synthesized stereo separation. Once you hear the quality sound, you'll know what you've been missing! The main power amp controls bass, treble, volume, balance, low and high, and impedance input. The speakers and a full set of interface cables are included.

**#1264 MacNifty Stereo:** From the Kette Group  
Retail \$79.97 Icon Review \$69

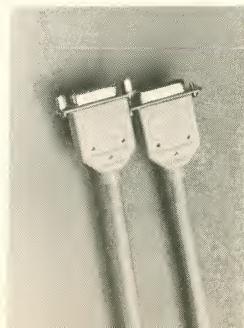
**TOLL FREE!**  
**ORDERS ONLY**  
**800/228-8910**  
**IN CALIFORNIA**  
**800/824-8175**



## Distance From Hard Disks Extension Cable

We all remember how hard Steve Jobs fought to keep a fan out of the Mac because he found the sound offensive. Hard disk drive manufacturers are not so fussy! If you'd like to put a little distance between yourself and your hard disk, this heavy-duty 9-pin extension cable can give you up to 8 feet of separation.

**#1298 Extension Cable**  
Retail \$23  
Icon Review \$19





## Shelf and Bookstand Software Gallery Bookcase

The clever design of this bookcase makes it the perfect home for your library of software products. Its upward tilt keeps books in place. Its extended lip acts as a book holder, keeping opened documentation upright for quick access, saving desk space, and eliminating clutter.

**#1237 Software Gallery Bookcase**  
From Ring King  
Icon Review \$21

*Express Yourself Fashionably With . . .*

### Underware Colorpack

Following the success of Underware, the iron-on transfer kit for the Macintosh, Colorpack is an enhanced version that includes color ink pens to liven up your t-shirt making. For those who haven't seen Underware, it allows you to substitute a special ribbon into your Imagewriter to print out transferable images. Anything you print out on an Imagewriter, you can print on a t-shirt — just remember to "flip horizontal" before printing! Now you can hand-color your design before you iron it onto your t-shirt. If you have lots of patience and an artistic flair, the novelty of Underware Colorpack t-shirts could make you stand out in a crowd!

**#1205 Underware Colorpack:** From Diversions, Inc.  
Retail \$24.95 Icon Review \$19

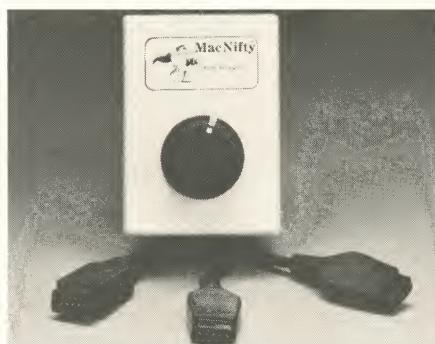


*Enter Figures Faster!*

### Numeric Turbo

This new input device combines the fast response of the Mac Turbo Touch trackball with a full-scale numeric keypad. Keys for arithmetic functions are perfectly positioned — no more holding down shift and leaving the home row for +, -, \*, /, or =. If you're accustomed to a numeric keypad for data entry, there's no better way to get figures into your Macintosh!

**#1107 Numeric Turbo**  
From Assimilation  
Retail \$149 Icon Review \$129



### Add a Peripheral With . . . MacNifty Port Switch

With the MacNifty Port Switch, you won't have to turn your Mac around to change plugs for any nine pin port. You can attach any two peripherals to the MacNifty, and then just turn its switch to select one of the two devices. Some ideas for using MacNifty: use your modem port for both a modem and digitizer, your printer port for both a standard printer for correspondence and an extended carriage for database reports. MacNifty is well constructed and comes with a lifetime guarantee.

**#1147 MacNifty Port Switch**  
From The Kette Group  
Retail \$34.95 Icon Review \$29



Your Resource For  
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Peripherals, & Accessories

**Icon  
Review**

### Serial to Parallel Conversion . . . Mac Port Adapter

Now you can connect IBM-style parallel peripherals to your Macintosh without losing your standard Macintosh serial port. The Mac Port Adapter plugs into one of your Mac's serial ports and gives you both a serial and a parallel port. Although you can have one serial and one parallel peripheral plugged into Mac Port Adapter at the same time, your Macintosh can output to only one of the devices at a time. Some parallel devices such as printers will require additional software drivers.

**#1214 Mac Port Adapter:** From Assimilation  
Retail \$79 Icon Review \$59



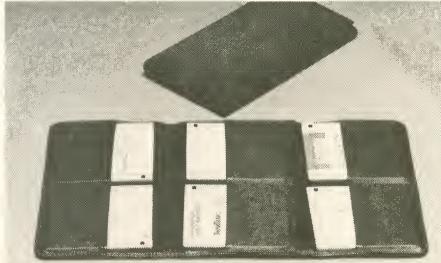
## Holds Up To 60 Diskettes Microdiskette Filing Systems

We've found this system to be the most attractive and functional of the desk top micro diskette storage units. It has simple lines with smoked plastic covers. The internal dividers are traditionally simple and efficient, and can be inserted or not, as you prefer. Access to your disks couldn't be more straightforward. Each unit holds up to 60 diskettes, two across. The two models are identical, except one comes with a lock.

### Microdiskette Filing Systems From Eichner

**#1032 Standard Model**  
Retail \$29.95 Icon Review \$25

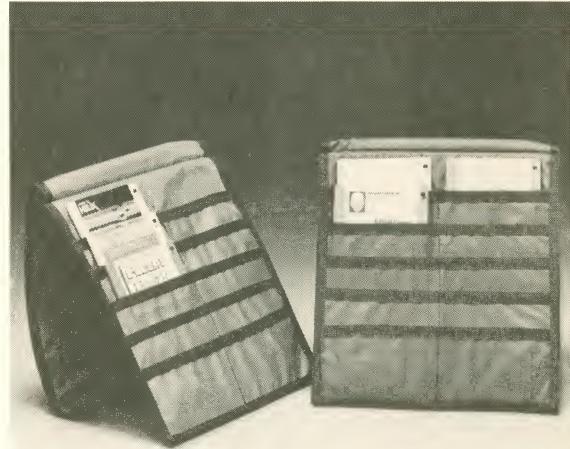
**#1033 With Lock**  
Retail \$37.50 Icon Review \$33



### A Classy Carrying Case The Disk Wallet

You spend long hours developing files on your Mac — hot new software, custom spreadsheets, intricate databases, or presentation graphics. Why throw your precious work in a briefcase? Keep it close to your heart with the Disk Wallet. Hand crafted from calfskin and lined in suede, this unique case lets you carry six microfloppies in style. It's the perfect size to accommodate your most precious disks, yet small enough to fit in your coat pocket. Like your cash and checkbook, your disks deserve special treatment.

**#1203 The Disk Wallet**  
From Leatherware, Inc.  
Retail \$49.95 Icon Review \$29



### Carry Your Diskette Library Conveniently!

#### The Easel

The size of a notebook and covered in long-wearing nylon, the Easel not only transports 20 diskettes comfortably, it sets them up for display once you've arrived!

**#1161 The Easel**  
From Innovative Technologies  
Retail \$19.95 Icon Review \$14

### You Can Take It With You! Macintosh and ImageWriter Carrying Cases

For those on the go, here's the way to take your Mac along in style. These carrying cases are sturdily constructed for long wear, with extra pockets for external disk drives or documentation. Choose either blue or gray.

**#1074 Macintosh Carrying Case**  
From Mountain Equipment, Inc.  
Retail \$99.95 Icon Review \$79

**#1075 ImageWriter Carrying Case**  
From Mountain Equipment, Inc.  
Retail \$79.95 Icon Review \$59





### The Optical Alternative . . .

#### A+ Mouse

*Editor's Note: The following is a customer's letter to our staff that describes the A+ Mouse.*

Luv that A+ Optical Mouse!!! As per your advice, this little silent squeaker is truly a winner. While struggling to control my elation over retirement from the game of "Q-Tip Rollerball," I would report a very large degree of satisfaction over the performance of the A+ device.

The ergonomic design of the A+ Mouse yields a dramatic increase in performance and ease of use when compared with the factory rollerball. Index finger placement is a natural, resistance to motion is perfect, and the silence is deafening.

Most significant problem at this time is the fact that my kids' game scores have risen to the point that there is now more competition for CPU time!

*From Customer Michael Fitzgerald*

**#1142 A+ Mouse:** From Mouse Systems  
Retail \$150 **Icon Review \$79**

### Futuristic Pointing Device View Control System

For those who like to keep their fingers on the home row, here's an interesting new alternative to the mouse — a lightweight headset that translates subtle head rotation into cursor positioning commands. Just look, and the pointer moves! Two buttons are included to add below the space bar where you can press them when a mouse click is required.

**#1232 View Control System:** From Personics Corporation  
Retail \$199 **Icon Review \$159**

### Keep it Rolling! Mouse Pad

This handy pad is soft, light, and easy to pack. It protects your mouse from dust and wear, and ensures smooth pointer movement.

**#1143 Mouse Pad:**  
Retail \$12.95 **Icon Review \$9**

### For Security and Theft Protection Tosh

Here's how to make sure your Mac stays where you put it! The Tosh security stand insures that only someone with a key can use or move your Mac. Measuring just 9.85" wide by 14.5" deep, Tosh is an ergonomic solution as well. It raises your Mac three inches above your desk to provide storage for your mouse and keyboard, saving desk space. Tosh also gives you 30° of tilt with a swivel plate option available.

Tosh's all-steel construction is engineered to secure to your desk with bolts or adhesive. There's no need to drill or glue the Mac itself — Tosh plugs into your Mac's Security Interface (that slot above the Mouse Port marked with the Chain icon). An optional padlock allows easy removal by authorized users, and other options secure a second disk drive, protect rear cables, and provide surge suppression. Perfect for schools and corporate computer centers, Tosh can eliminate worry and let your Mac rest secure!



**Tosh Security Products**  
From Doss Industries

**#1242 Security Stand**

Retail \$169.95 **Icon Review \$139**

**#1243 Swivel Plate**

Retail \$35 **Icon Review \$24.50**

**#1245 Voltage Surge Suppressor**

Retail \$50 **Icon Review \$38**

**#1247 External Drive Bracket**

Retail \$50 **Icon Review \$38**

**#1246 Adhesive Mounting System**

Retail \$15 **Icon Review \$12**

**#1244 Rear Cable Protector**

Retail \$20 **Icon Review \$14**

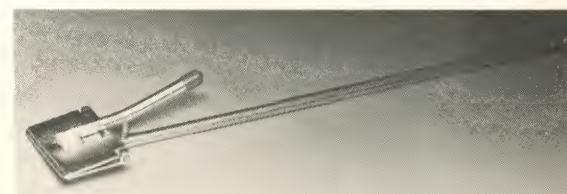
### For Getting Into It! MacCracker

If you can't wait for Apple to open the Mac's architecture, here's a handy tool that will at least open its case! This combination long-handled Torx screwdriver and cover pry tool is your passport to the Mac's inner sanctum. The long-handle screwdriver makes removing those screws deep inside the handle a breeze, and the cover pry gives you much better leverage on the case and faceplate than a ruler. For those willing to sacrifice their Apple warranty for a peek at Mac's guts, MacCracker is the right tool for the job!

**#1283 MacCracker**

From Icon Review (Use at your own risk!)

Retail \$25 **Icon Review \$20**





The Icon Review offers you five key advantages you can't find anywhere else. It:

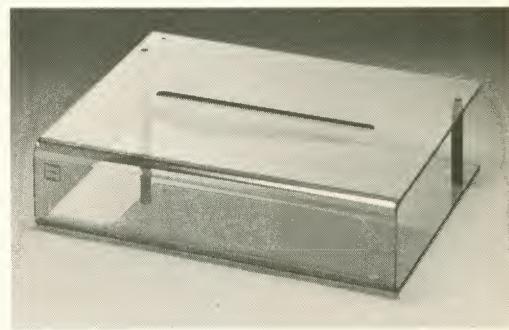
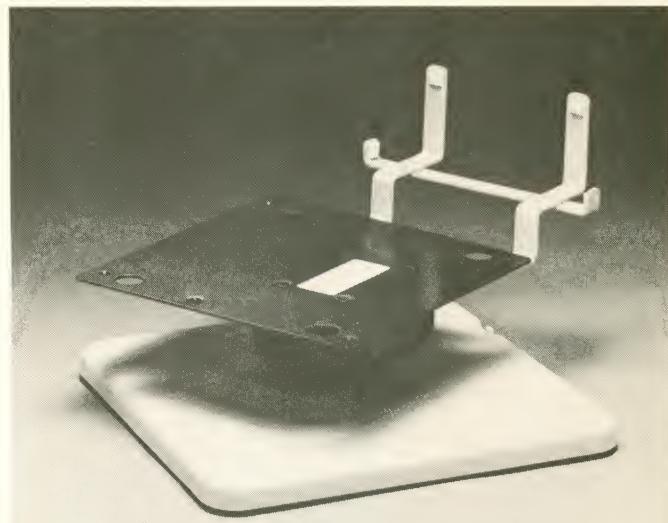
- Identifies the best Macintosh software products from among the 500+ available.
- Tells you what you need to know to make informed buying decisions.
- Gives it to you straight — no advertising means extreme candor from a consumer advocates viewpoint.
- Lets you shop at your convenience — by mail or by phone.
- Saves you money with rock bottom prices.

*Elevated Ergonomics!*

### MacTilt

MacTilt elevates the Macintosh approximately 4" above your desk and provides 30° tilt and 360° rotation with just the touch of a finger. A universal automotive joint and Ergotron's patented tilt friction assembly are at the heart of this solid, easy-to-move stand. Mounting the Macintosh is easy, and it remains secure in the brackets until you lift it off. The External Disk Drive Mounting Bracket is standard.

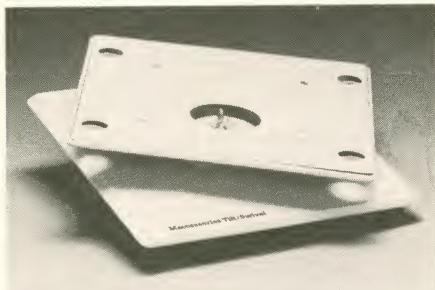
**#1029 MacTilt:** From Ergotron  
Retail \$99.95   **Icon Review \$95**



### *Printer Noise Pollution?* Sound-Write Acoustical Printer Cover

Make friends with those who share your work environment by shutting your printer in with its own noise! Deep padding inside the plastic shell absorbs the commotion and lets you and those around you continue working in peace.

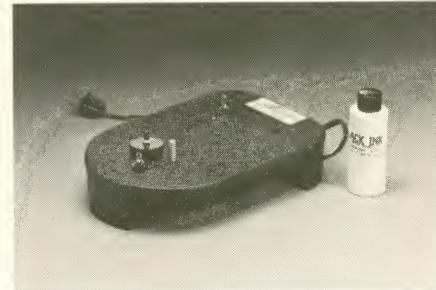
**#1236 Sound-Write Acoustical Printer Cover:** From Ring King  
Icon Review \$99



### Get a Good Look! Tilt/Swivel

This stand lets you adjust the position and angle of your Macintosh without emptying your pocketbook! Tilt/Swivel has low profile and fits cleanly beneath your system without enlarging your Mac's footprint. It's designed to look like part of the computer.

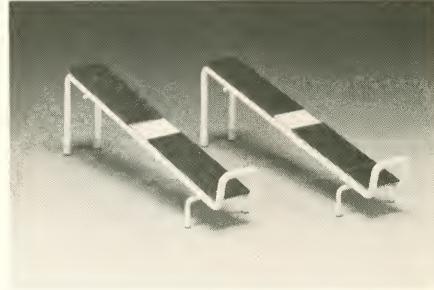
**#1199 Tilt/Swivel**  
From Kensington Microware  
Retail \$34.95   **Icon Review \$21**



### Recycle Your Printer Ribbons Mac Inker

You can use Mac Inker to re-ink your dry Imagewriter cartridges, which can be used almost indefinitely if kept properly inked and lubricated.

**#1138 Mac Inker**  
From Computer Friends  
Retail \$59.95   **Icon Review \$55**



### Put Your Printer Above It All! Universal Printer Stand

This Printer Stand lifts your Imagewriter at an angle so you can easily monitor its performance, and saves valuable desk space by raising your printer above your paper supply. Because it is in two parts, the Universal Printer Stand can support either the standard or extended carriage Imagewriter.

**#1141 Printer Stand**  
From Kensington Microware  
Retail \$44.95   **Icon Review \$19**

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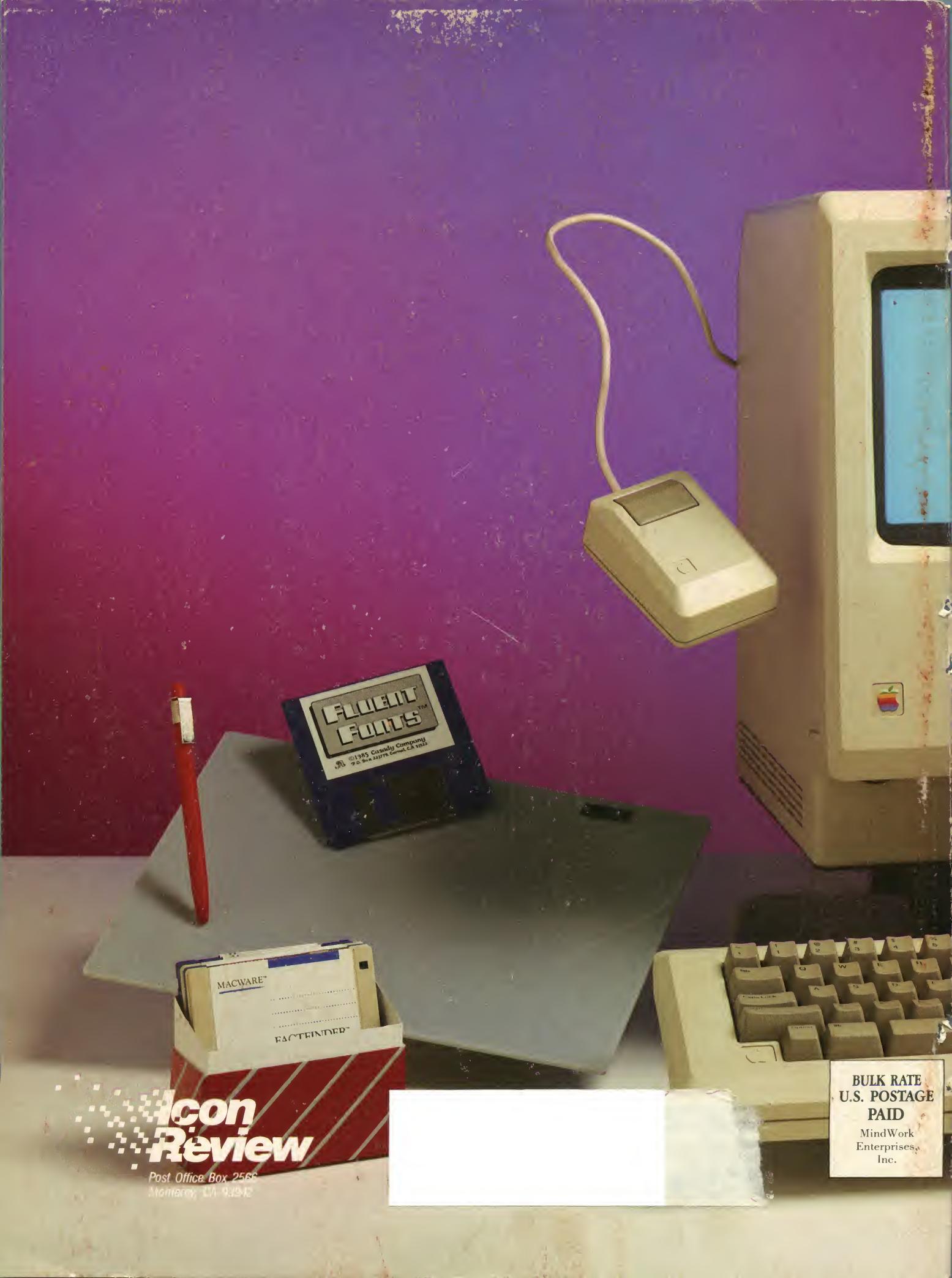
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